

Revision A:

- MUZ-GE42/50VA(H) - **E1** has been added.

Please void OBH516.

OUTDOOR UNIT

SERVICE MANUAL



No. OBH516
REVISED EDITION-A

Models

MUZ-GE25VA - **E1**

MUZ-GE25VAH - **E1**

MUZ-GE35VA - **E1**

MUZ-GE35VAH - **E1**

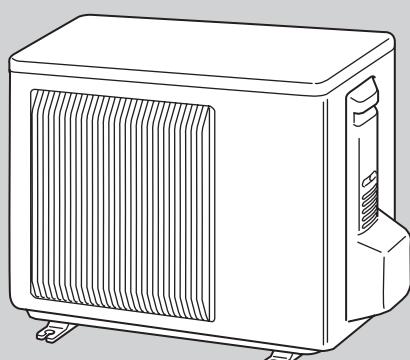
MUZ-GE42VA - **E1**

MUZ-GE42VAH - **E1**

MUZ-GE50VA - **E1**

MUZ-GE50VAH - **E1**

Indoor unit service manual
MSZ-GE•VA Series (OBH515)
MSZ-CGE•VA Series (OBH523)



MUZ-GE25/35/42VA

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PARTS CATALOG (OBH516)

NOTE:

RoHS compliant products have <G> mark on the spec name plate.



Revision A:

- MUZ-GE42/50VA(H) - has been added.

MUZ-GE25VA -E1

MUZ-GE35VA -E1

MUZ-GE42VA -E1

MUZ-GE50VA -E1

MUZ-GE25VAH -E1

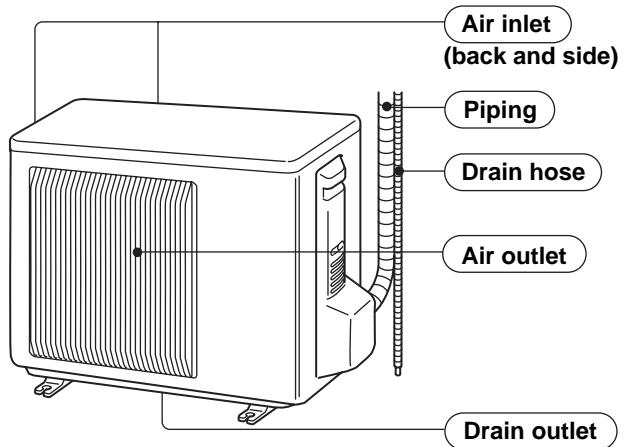
MUZ-GE35VAH -E1

MUZ-GE42VAH -E1

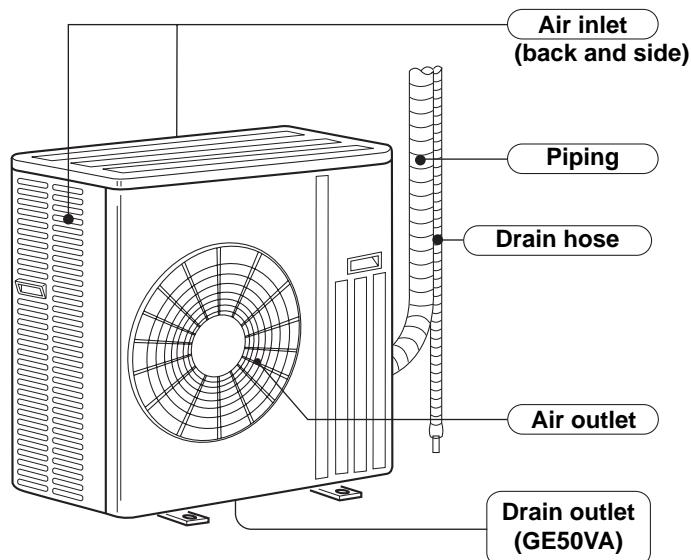
MUZ-GE50VAH -E1

1. New model

MUZ-GE25VA MUZ-GE25VAH MUZ-GE35VA MUZ-GE35VAH
 MUZ-GE42VA MUZ-GE42VAH



MUZ-GE50VA MUZ-GE50VAH



ACCESSORIES

| | MUZ-GE25/35/42VA | MUZ-GE50VA |
|----------------|------------------|------------|
| ① Drain socket | 1 | 1 |
| ② Drain cap | - | 2 |

| Outdoor model | | | MUZ-GE25VA MUZ-GE25VAH | MUZ-GE35VA MUZ-GE35VAH | MUZ-GE42VA MUZ-GE42VAH | MUZ-GE50VA MUZ-GE50VAH | |
|---|----------------------------|---------|----------------------------|---------------------------|---------------------------|---------------------------|--|
| Power supply | | | Single phase, 230 V, 50 Hz | | | | |
| Capacity | Cooling | kW | 2.5 (1.1 - 3.5) | 3.5 (1.1 - 4.0) | 4.2 (0.9 - 4.8) | 5.0 (1.4 - 5.5) | |
| Rated frequency (Min.-Max.) | Heating | | 3.2 (1.3 - 4.5) | 4.0 (1.6 - 5.3) | 5.4 (1.4 - 6.0) | 5.8 (1.4 - 7.3) | |
| Breaker Capacity | | | 10 | | | | |
| Electrical data | Power input *1 (Total) | Cooling | W | 545 | 865 | 1,215 | |
| | | Heating | | 700 | 955 | 1,460 | |
| | Running current *1 (Total) | Cooling | A | 2.9 | 4.2 | 5.6 | |
| | | Heating | | 3.7 | 4.6 | 6.6 | |
| | Power factor *1 (Total) | Cooling | % | 82 | 90 | 94 | |
| | | Heating | | 82 | 90 | 96 | |
| Starting current *1 (Total) | | | A | 3.7 | 4.6 | 6.6 | |
| Coefficient of performance (COP) *1 (Total) | Cooling | | | 4.59 | 4.05 | 3.46 | |
| | Heating | | | 4.57 | 4.19 | 3.70 | |
| Compressor | Model | | | KNB073FFDHC | KNB092FFAHC | SNB130FGBHT | |
| | Output | | W | 550 | 650 | 900 | |
| | Current *1 | Cooling | A | 2.44 | 3.56 | 4.99 | |
| | | Heating | | 3.20 | 4.06 | 5.98 | |
| | Refrigeration oil (Model) | | | 320 (NEO22) | | 450 (NEO22) | |
| Fan motor | Model | | | RC0J50-DB | | RC0J50-EA | |
| | Current *1 | Cooling | A | 0.24 | 0.35 | 0.32 | |
| | | Heating | | 0.27 | 0.31 | 0.31 | |
| Dimensions W × H × D | | | mm | 800 × 550 × 285 | | 840 × 850 × 330 | |
| Weight | | | kg | 30 | 33 | 36 | |
| Special remarks | Dehumidification | | Cooling | ℓ/h | 0.2 | 0.9 | |
| | Air flow *1 | Cooling | Med. | m³/h | 1,806 | 1,872 | |
| | | | Low | | 1,170 | 1,776 | |
| | | Heating | High | | 2,106 | 2,016 | |
| | | | Med. | | 1,806 | 1,776 | |
| | | | Low | | 1,452 | 1,386 | |
| | Sound level *1 | | Cooling | dB(A) | 47 | 50 | |
| | | | Heating | | 48 | 51 | |
| Fan speed | Cooling | Med. | rpm | 740 | 810 | 810 | |
| | | Low | | 490 | 770 | 490 | |
| | | High | | 860 | 870 | 870 | |
| | | Med. | | 740 | 770 | 770 | |
| | | Low | | 600 | 610 | 610 | |
| Fan speed regulator | | | | 3 | | 2 | |
| Refrigerant filling capacity (R410A) | | | kg | 0.80 | 1.15 | 1.55 | |

NOTE: Test conditions are based on ISO 5151.

Cooling: Indoor Dry-bulb temperature 27°C
Outdoor Dry-bulb temperature 35°C

Wet-bulb temperature 19°C

Heating: Indoor Dry-bulb temperature 20°C

Wet-bulb temperature 6°C

Outdoor Dry-bulb temperature 7°C

Refrigerant piping length (one way): 5 m

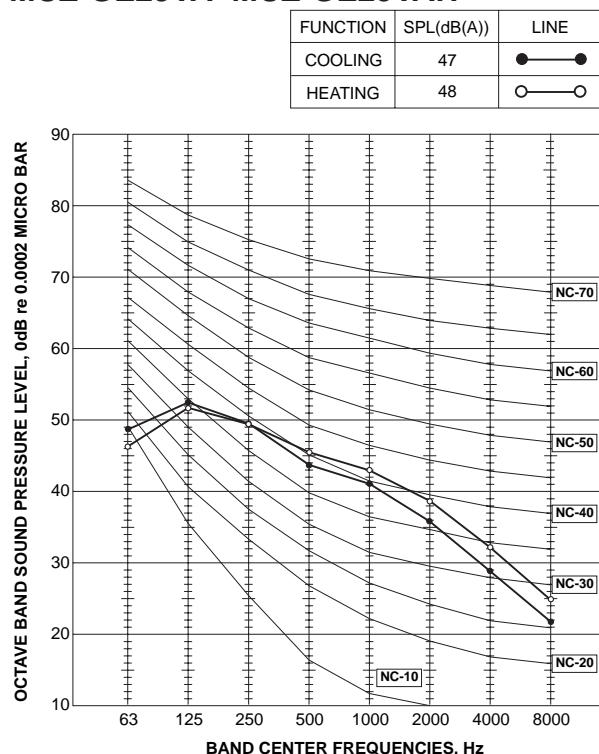
*1 Measured under rated operating frequency.

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

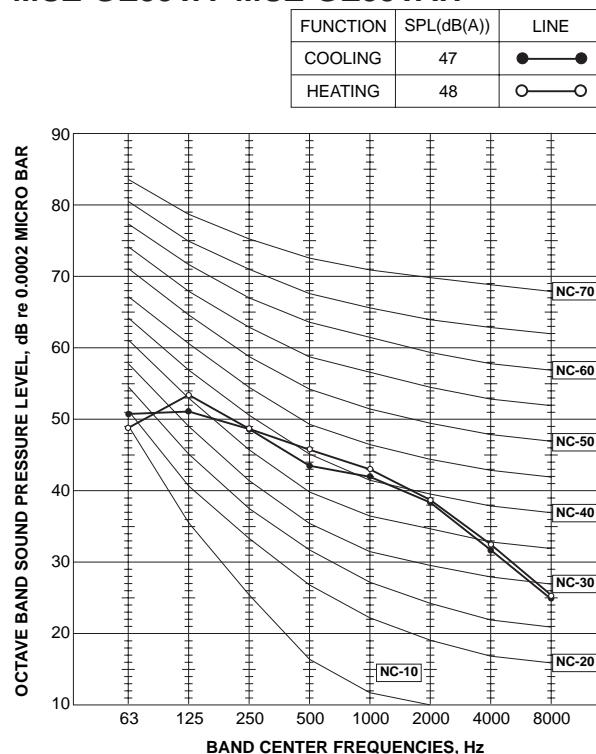
Specifications and rating conditions of main electric parts

| Item | Model | MUZ- GE25VA | MUZ- GE25VAH | MUZ- GE35VA | MUZ- GE35VAH | MUZ- GE42VA | MUZ- GE42VAH | MUZ- GE50VA | MUZ- GE50VAH |
|---------------------------------|--------------------|----------------------------------|--------------------|------------------------------------|-----------------|------------------------------------|------------------|----------------|-----------------|
| Current transformer | (CT) | | | | 20 A | | | | |
| | (CT761, CT781) | | | | 15 A | | | | |
| Smoothing capacitor | (C61, C62, C63) | | | 620 μ F | 420 V | | | | |
| | | | | | | | | | |
| Diode module | (DB61) | | | 15 A 600 V | | | 25 A 600 V | | |
| | (DB65) | | | | 25 A 600 V | | | | |
| Fuse | (F61) | | | | T20AL250V | | | | |
| | (F701, F801, F901) | | | | T3.15AL250V | | | | |
| Defrost heater | (H) | — | 230 V 130 W | — | 230 V 130 W | — | 230 V 130 W | — | 230 V 120 W |
| Intelligent power module | (IPM) | | 15 A 600 V | | | | 20 A 600 V | | |
| Expansion valve coil | (LEV) | | | | DC 12 V | | | | |
| Reactor | (L61) | 18 mH | | | 23 mH | | | | |
| | (R61) | 45 m Ω 5 W (1 element) | | 100 m Ω 5 W (2 elements) | | | — | | |
| Current-detecting resistor | (R61,R62) | | — | | | 180 m Ω 5 W (2 elements) | | | |
| | (R825) | | | 25 m Ω 5 W | | | | | |
| Current-limiting PTC thermistor | (R937, R938, R939) | | 430 m Ω 2 W | | | | — | | |
| | (R937A,R937B) | | — | | | | 1.1 Ω 2 W | | |
| Terminal block | (TB1, TB2) | | | 33 Ω | | | | | |
| Relay | (X63) | | | 3 A 250 V | | | | | |
| | (X64) | | | 20 A 250 V | | | | | |
| R.V.coil | (21S4) | — | 3 A 250 V | — | 3 A 250 V | — | 3 A 250 V | — | 3 A 250 V |
| Heater protector | (26H) | — | Open 45°C | — | Open 45°C | — | Open 45°C | — | Open 45°C |
| IGBT | (TR821) | | | 30 A 600 V | | | | | |

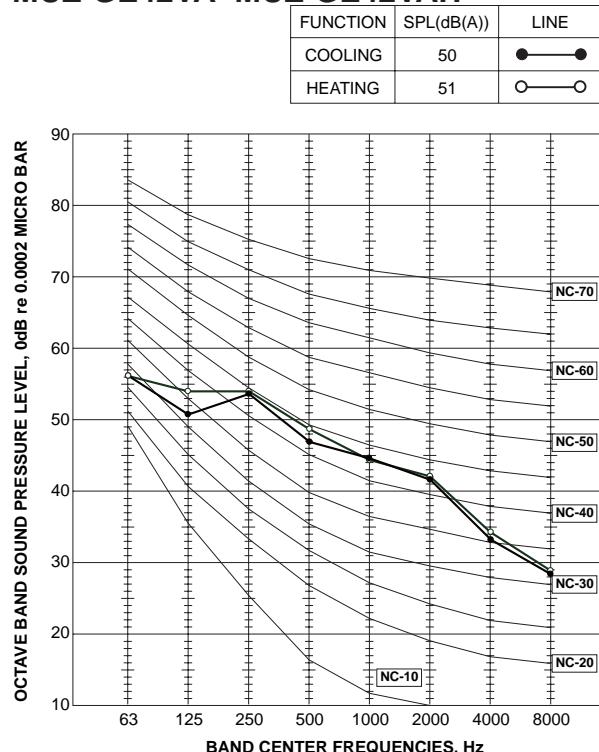
MUZ-GE25VA MUZ-GE25VAH



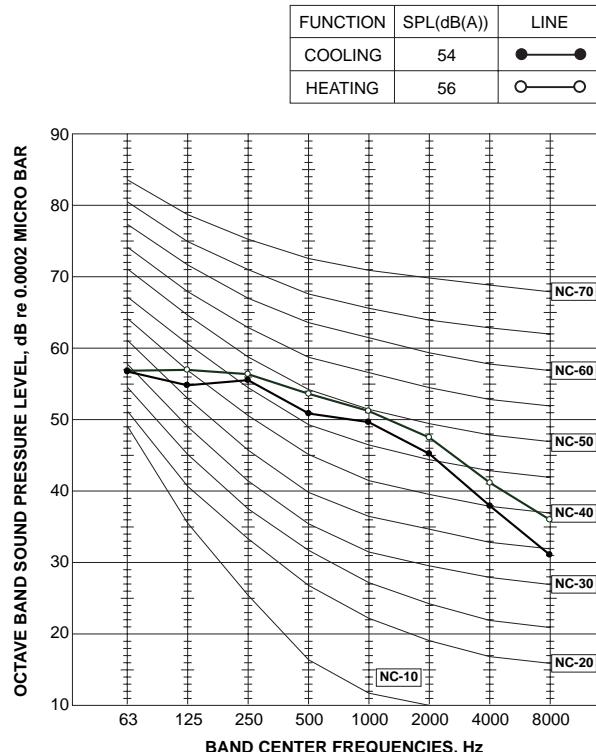
MUZ-GE35VA MUZ-GE35VAH



MUZ-GE42VA MUZ-GE42VAH

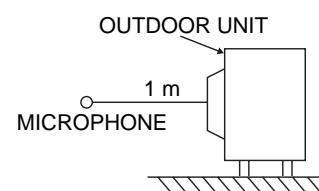


MUZ-GE50VA MUZ-GE50VAH



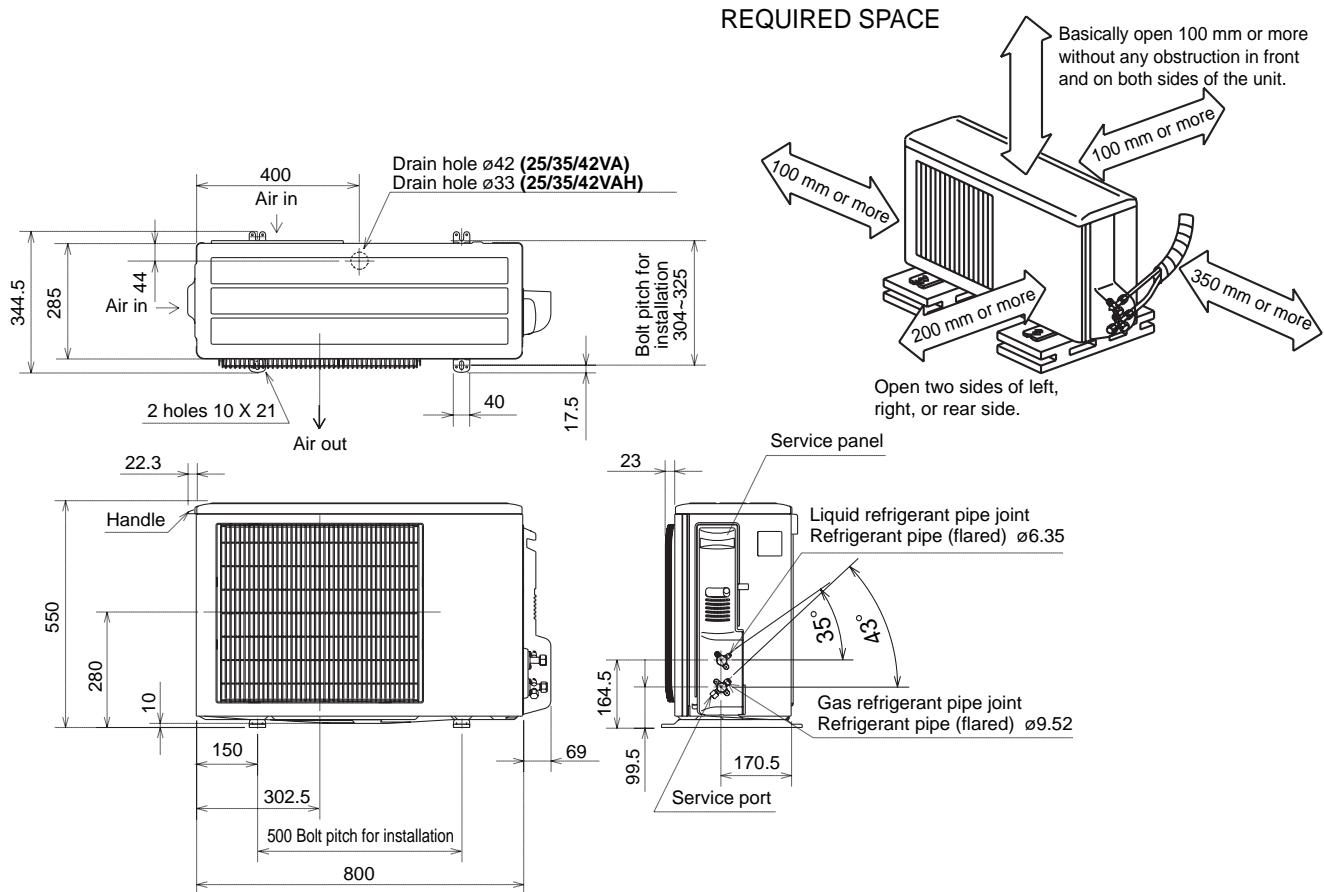
Test conditions

Cooling : Dry-bulb temperature 35 °C
 Heating : Dry-bulb temperature 7 °C Wet-bulb temperature 6 °C

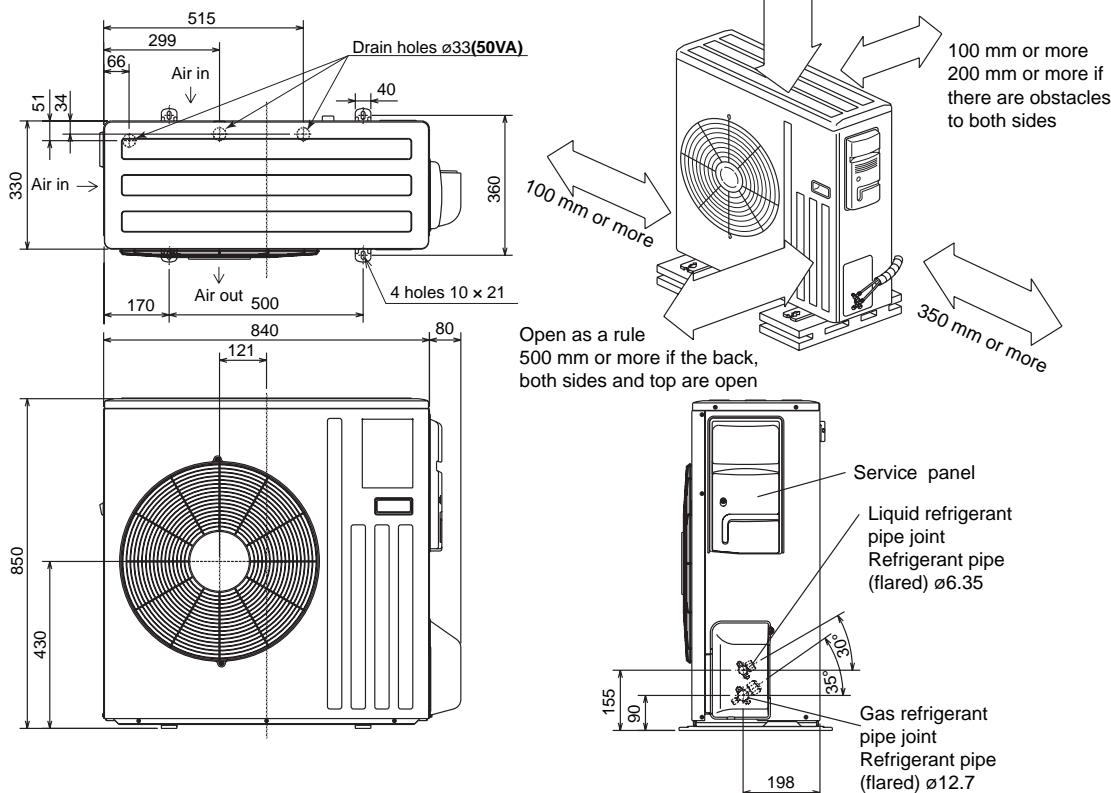


**MUZ-GE25VA MUZ-GE25VAH MUZ-GE35VA MUZ-GE35VAH
MUZ-GE42VA MUZ-GE42VAH**

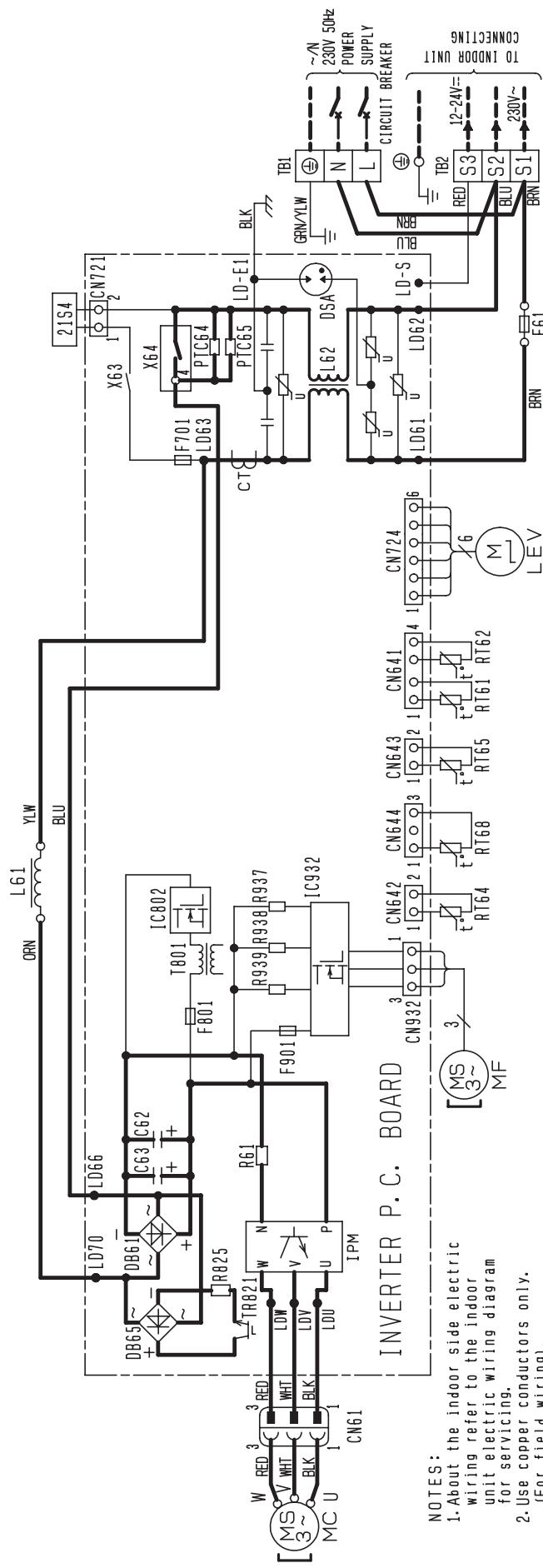
Unit: mm



MUZ-GE50VA MUZ-GE50VAH

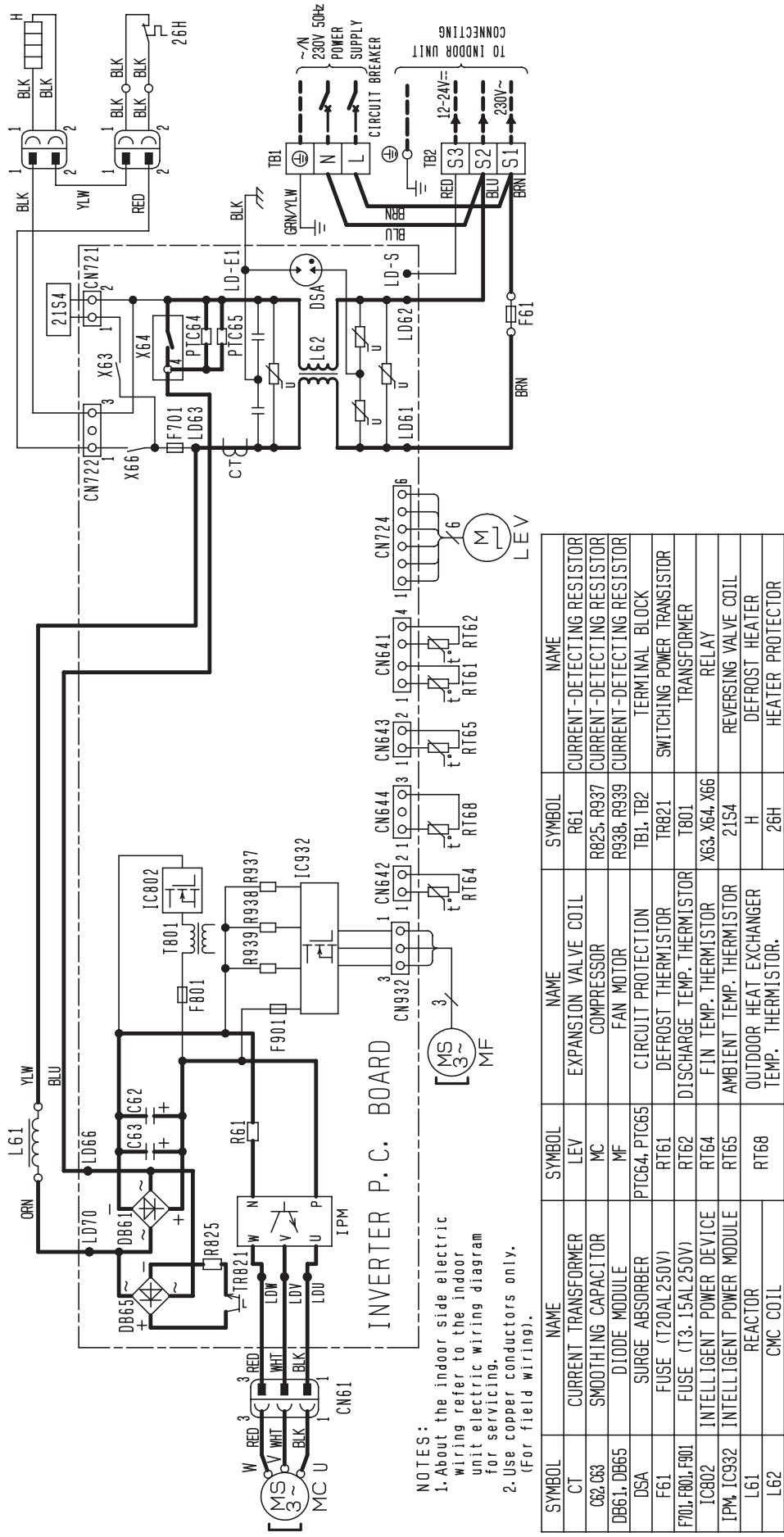


MUZ-GE25VA MUZ-GE35VA

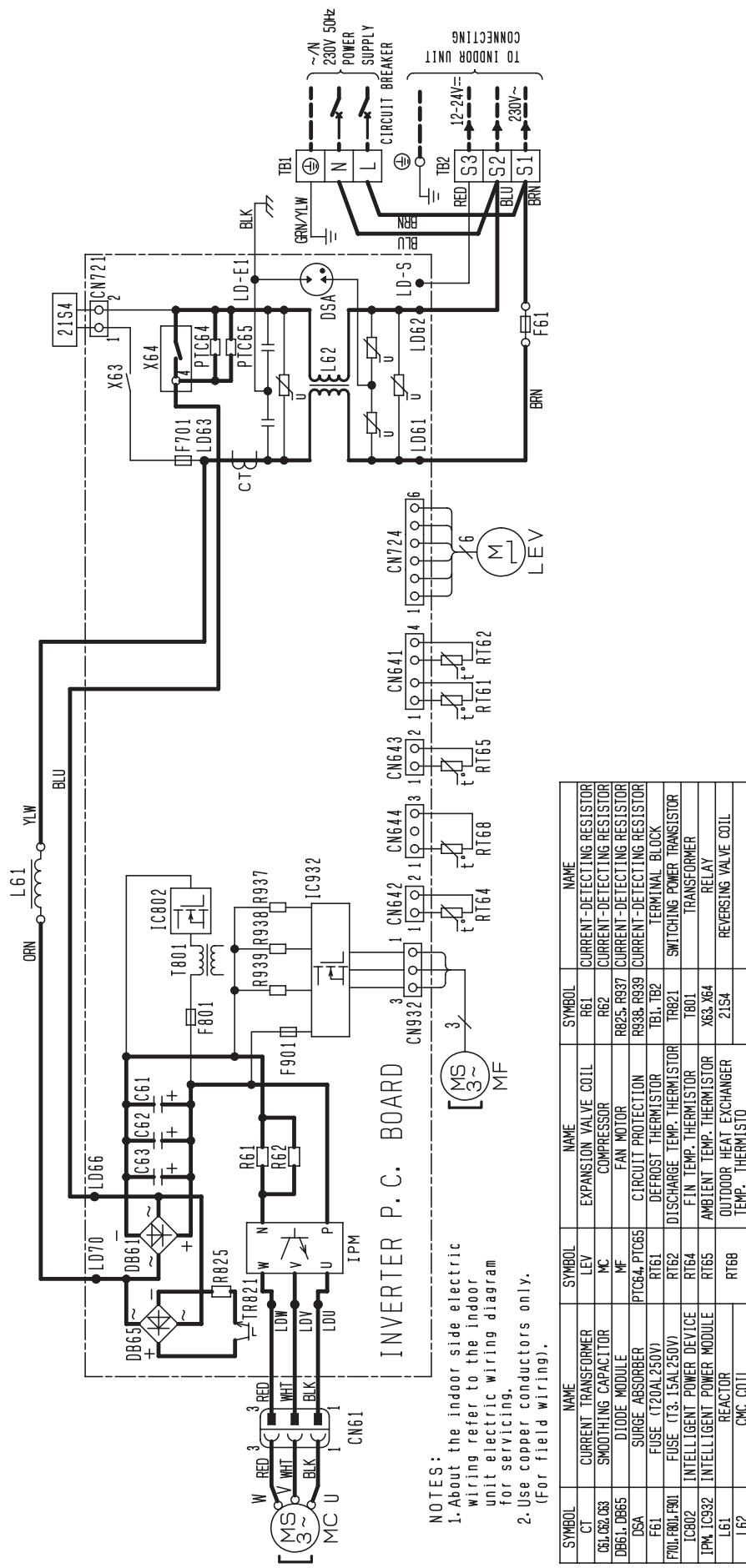


| SYMBOL | NAME | SYMBOL | NAME | SYMBOL | NAME |
|-------------|--------------------------|--------------|----------------------------|------------|----------------------------|
| CT | CURRENT TRANSFORMER | LEV | EXPANSION VALVE COIL | R61 | CURRENT-DETECTING RESISTOR |
| Q62, C63 | SMOOTHING CAPACITOR | MC | COMPRESSOR | R825, R937 | CURRENT-DETECTING RESISTOR |
| DB661, DB65 | DIODE MODULE | MF | FAN MOTOR | R938, R939 | CURRENT-DETECTING RESISTOR |
| DSA | SURGE ABSORBER | PTC64, PTC65 | CIRCUIT PROTECTION | TB1, TB2 | TERMINAL BLOCK |
| F61 | FUSE (T20AL 250V) | RT61 | DEFROST THERMISTOR | TR821 | SWITCHING POWER TRANSISTOR |
| F701, F901 | FUSE (T3-1.5A 250V) | RT62 | DISCHARGE TEMP. THERMISTOR | T801 | TRANSFORMER |
| IC802 | INTELLIGENT POWER DEVICE | RT64 | FIN TEMP. THERMISTOR | X63, X64 | RELAY |
| IPM, IC932 | INTELLIGENT POWER MODULE | RT65 | AMBIENT TEMP. THERMISTOR | 21S4 | REVERSING VALVE COIL |
| L61 | REACTOR | RT68 | OUTDOOR HEAT EXCHANGER | | |
| L62 | CMC COIL | | TEMP. THERMISTOR | | |

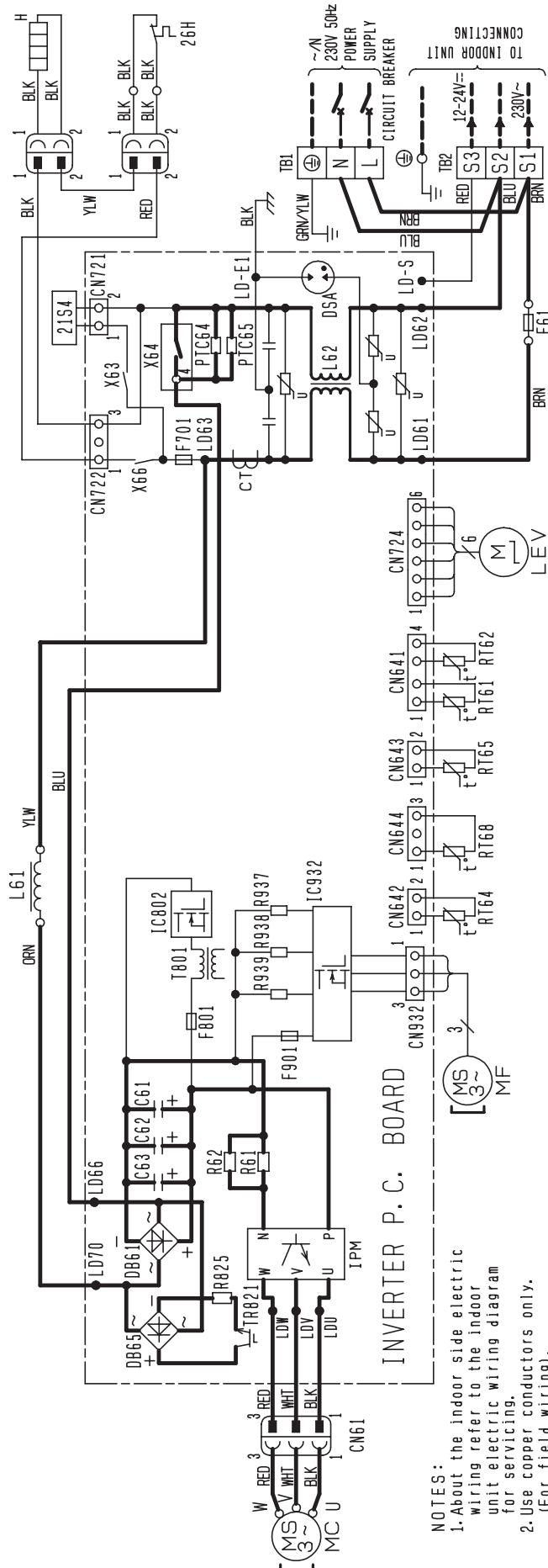
MUZ-GE25VAH MUZ-GE35VAH



MUZ-GE42VA

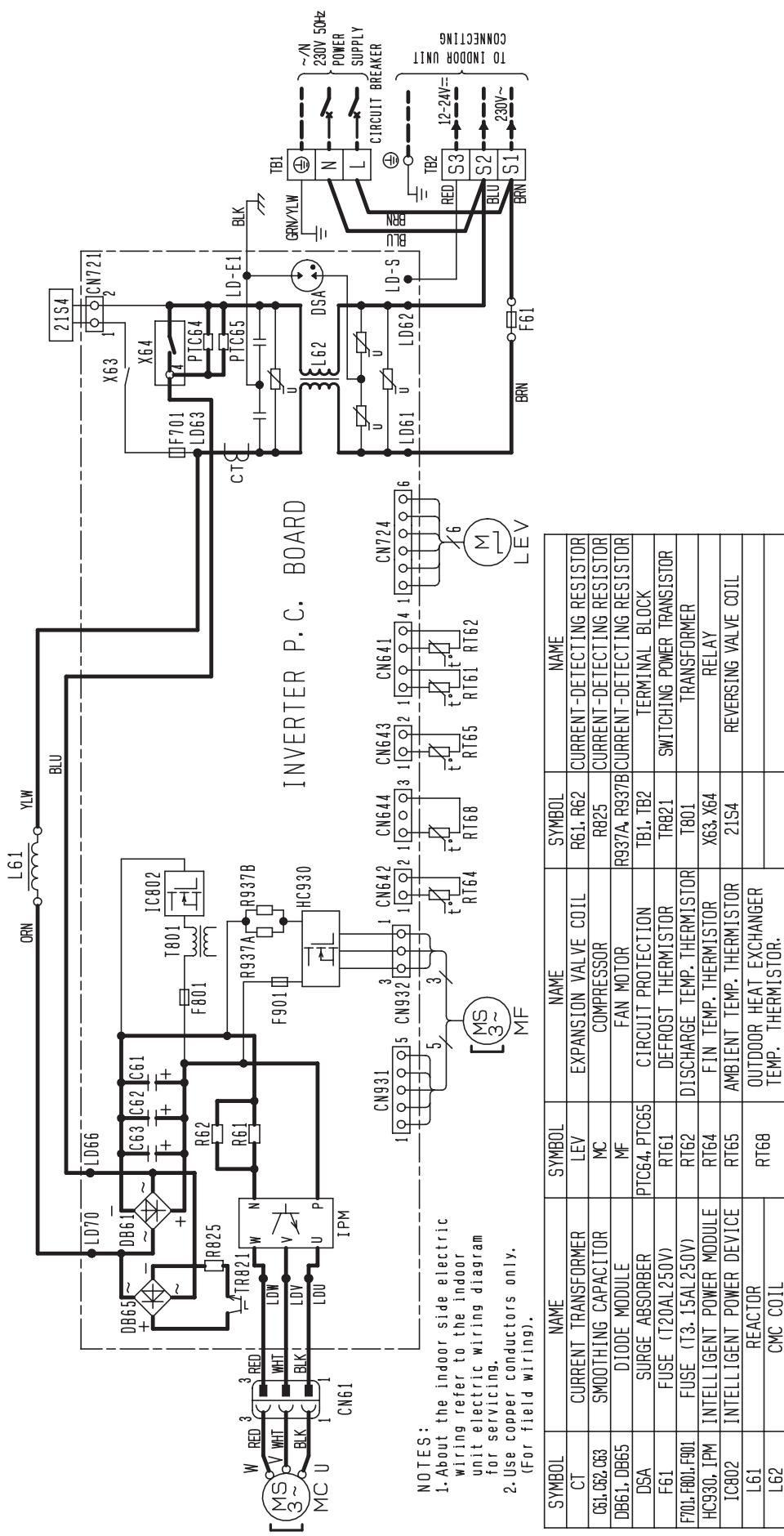


MUZ-GE42VAH

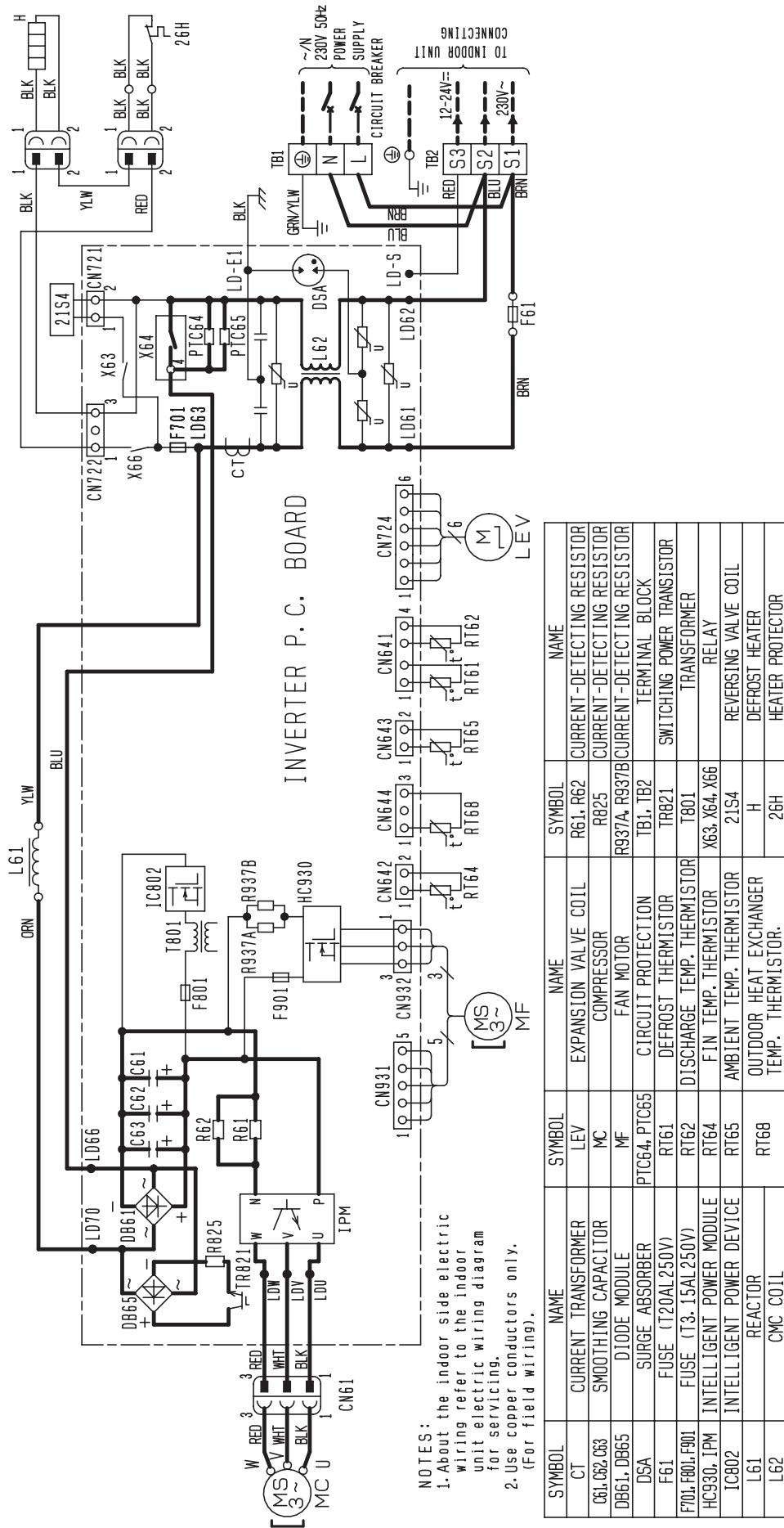


| SYMBOL | NAME | SYMBOL | NAME | SYMBOL | NAME |
|------------------|--------------------------|--------------|--|---------------|----------------------------|
| CT | CURRENT TRANSFORMER | LEV | EXPANSION VALVE COIL | R61, R62 | CURRENT-DETECTING RESISTOR |
| CG1, CG2, CG3 | SMOOTHING CAPACITOR | MC | COMPRESSOR | R825, R937 | CURRENT-DETECTING RESISTOR |
| DB61, DB65 | DIODE MODULE | MF | FAN MOTOR | R938, R939 | CURRENT-DETECTING RESISTOR |
| DSA | SURGE ABSORBER | PTC64, PTG65 | CIRCUIT PROTECTION | TB1, TB2 | TERMINAL BLOCK |
| F61 | FUSE (T20AL 250V) | RT61 | DEFROST THERMISTOR | TR821 | SWITCHING POWER TRANSISTOR |
| F701, F801, F901 | FUSE (T3, 15AL 250V) | RT62 | DISCHARGE TEMP. THERMISTOR | T801 | TRANSFORMER |
| IC802 | INTELLIGENT POWER DEVICE | RT64 | F IN TEMP. THERMISTOR | X63, X64, X66 | RELAY |
| IPM | INTELLIGENT POWER MODULE | RT65 | AMBIENT TEMP. THERMISTOR | 254 | REVERSING VALVE COIL |
| L61 | REACTOR | RT68 | OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR. | H | DEFROST HEATER |
| L62 | CMC COIL | | | 26H | HEATER PROTECTOR |

MUZ-GE50VA

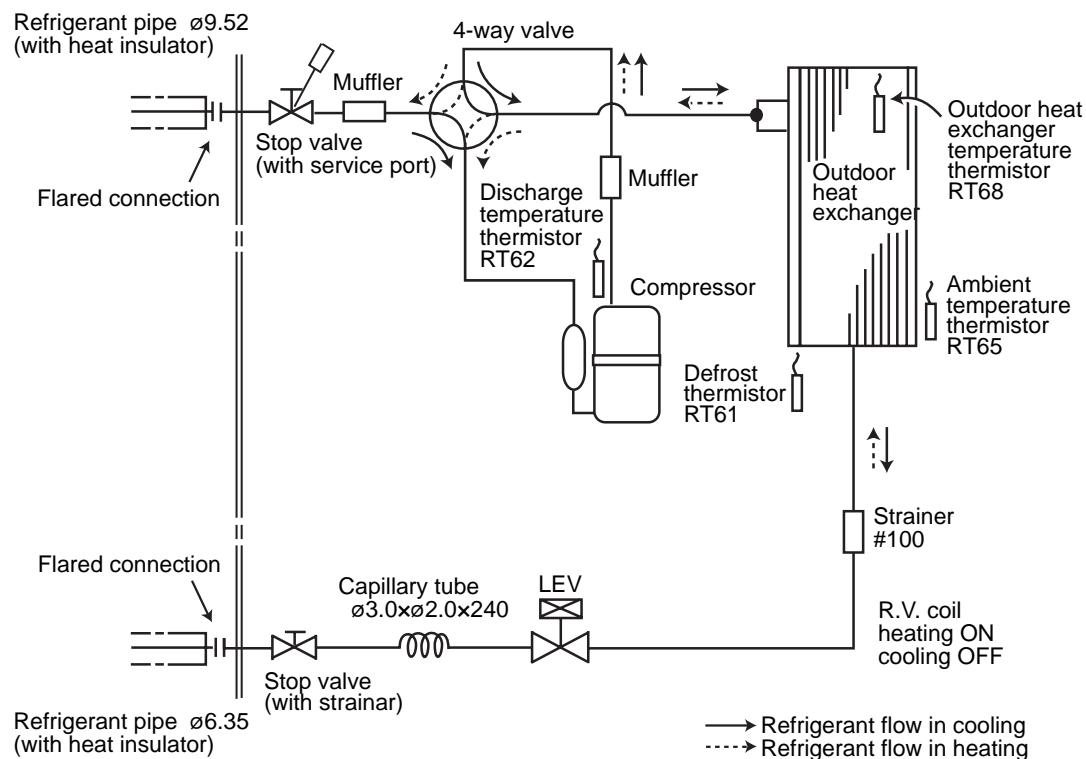


MUZ-GE50VAH



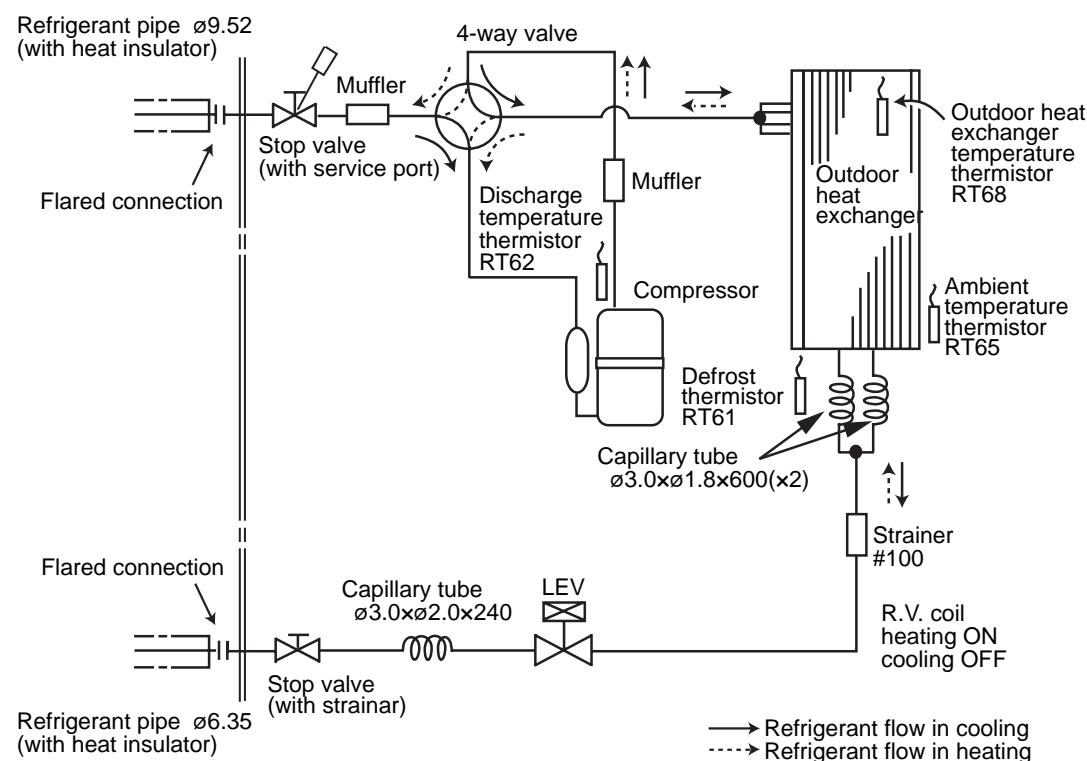
MUZ-GE25VA MUZ-GE25VAH

Unit: mm



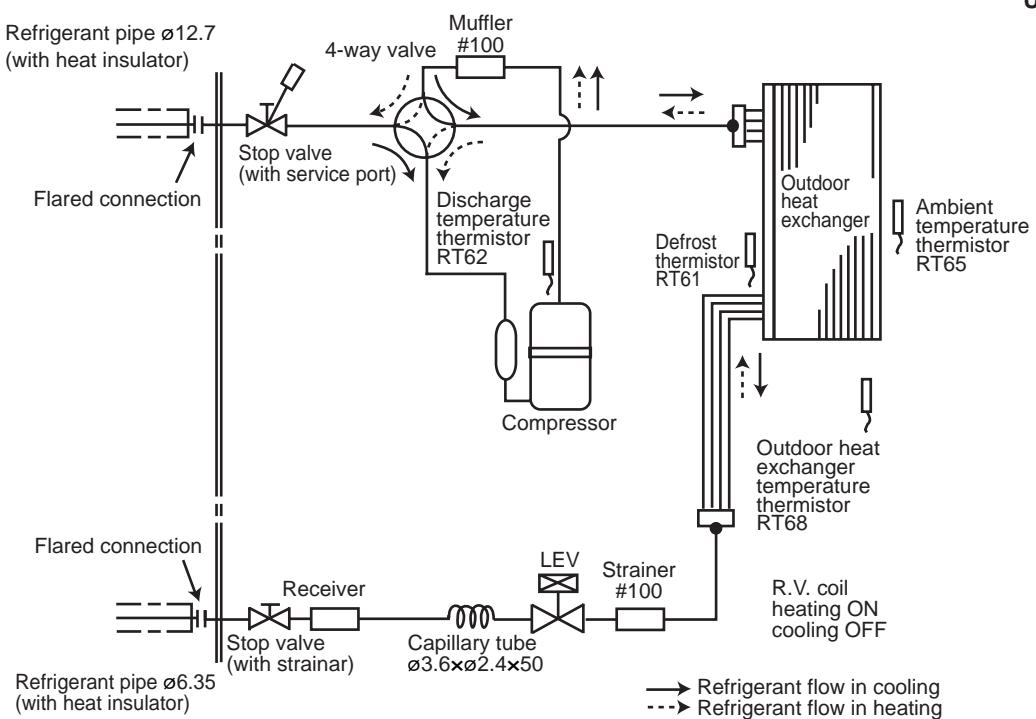
MUZ-GE35VA MUZ-GE35VAH MUZ-GE42VA MUZ-GE42VAH

Unit: mm



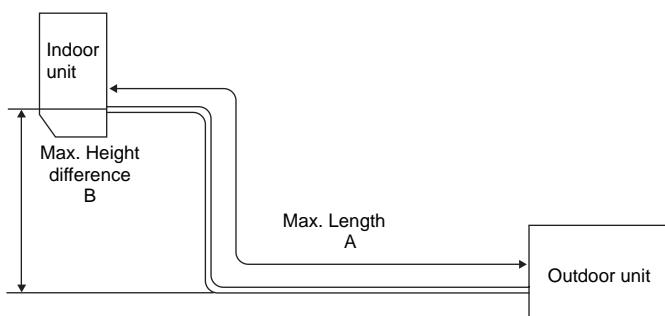
MUZ-GE50VA MUZ-GE50VAH

Unit: mm



MAX. REFRIGERANT PIPING LENGTH and MAX. HEIGHT DIFFERENCE

| | Refrigerant piping: m | | Piping size O.D: mm | |
|----------------|-----------------------|--------------------------|---------------------|--------|
| | Max. Length A | Max. Height difference B | Gas | |
| | | | Liquid | Liquid |
| MUZ-GE25/35/42 | 20 | 12 | 9.52 | |
| MUZ-GE50 | 30 | 15 | 12.7 | 6.35 |



ADDITIONAL REFRIGERANT CHARGE (R410A: g)

| Model | Outdoor unit precharged | Refrigerant piping length (one way) | | | | | | | | | | | |
|-------------|-------------------------|-------------------------------------|-----|-----|-----|-----|------|------|------|------|------|------|------|
| | | 5 m | 6 m | 7 m | 8 m | 9 m | 10 m | 11 m | 12 m | 13 m | 14 m | 15 m | 20 m |
| MUZ-GE25 | 800 | 0 | 0 | 0 | 30 | 60 | 90 | 120 | 150 | 180 | 210 | 240 | 390 |
| MUZ-GE35/42 | 1,150 | | | | | | | | | | | | |

Calculation: $X \text{ g} = 30 \text{ g/m} \times (\text{Refrigerant piping length (m)} - 7)$

| Model | Outdoor unit precharged | Refrigerant piping length (one way) | | | | | |
|----------|-------------------------|-------------------------------------|------|------|------|------|------|
| | | 7 m | 10 m | 15 m | 20 m | 25 m | 30 m |
| MUZ-GE50 | 1,550 | 0 | 60 | 160 | 260 | 360 | 460 |

Calculation: $X \text{ g} = 20 \text{ g/m} \times (\text{Refrigerant piping length (m)} - 7)$

NOTE: Refrigerant piping exceeding 7 m requires additional refrigerant charge according to the calculation.

MUZ-GE25VA MUZ-GE25VAH MUZ-GE35VA MUZ-GE35VAH MUZ-GE42VA MUZ-GE42VAH MUZ-GE50VA MUZ-GE50VAH

The standard specifications apply only to the operation of the air conditioner under normal conditions. Since operating conditions vary according to the areas where these units are installed, the following information has been provided to clarify the operating characteristics of the air conditioner under the conditions indicated by the performance curve.

(1) GUARANTEED VOLTAGE

198 ~ 264 V, 50 Hz

(2) AIR FLOW

Air flow should be set at MAX.

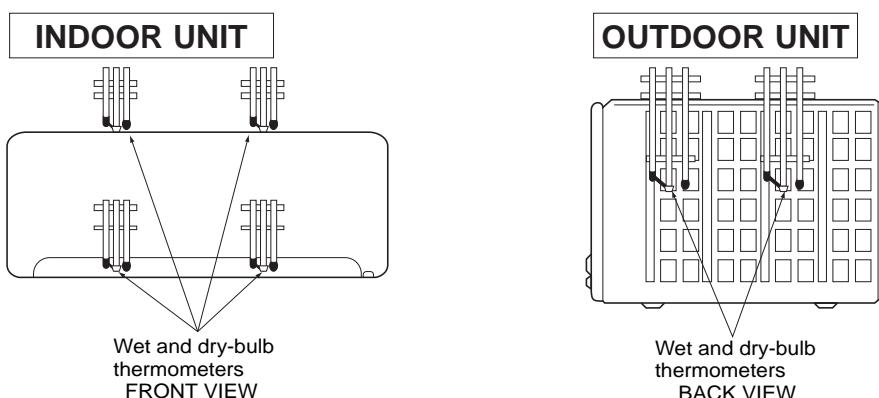
(3) MAIN READINGS

| | | | |
|--|---------|---|---------|
| (1) Indoor intake air wet-bulb temperature: | °C [WB] | } | Cooling |
| (2) Indoor outlet air wet-bulb temperature: | °C [WB] | | |
| (3) Outdoor intake air dry-bulb temperature: | °C [DB] | | |
| (4) Total input: | W | } | Heating |
| (5) Indoor intake air dry-bulb temperature: | °C [DB] | | |
| (6) Outdoor intake air wet-bulb temperature: | °C [WB] | | |
| (7) Total input: | W | | |

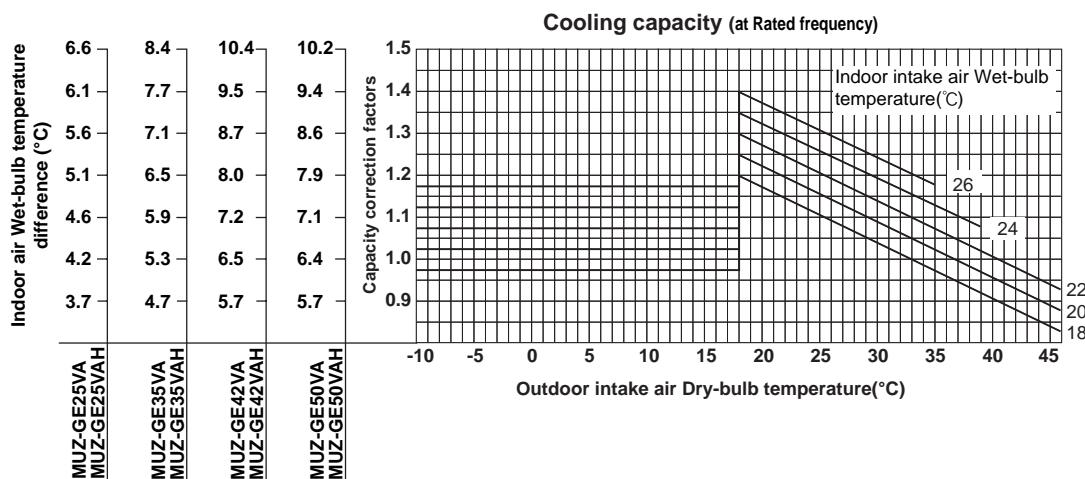
Indoor air wet/dry-bulb temperature difference on the left side of the following chart shows the difference between the indoor intake air wet/dry-bulb temperature and the indoor outlet air wet/dry-bulb temperature for your reference at service.

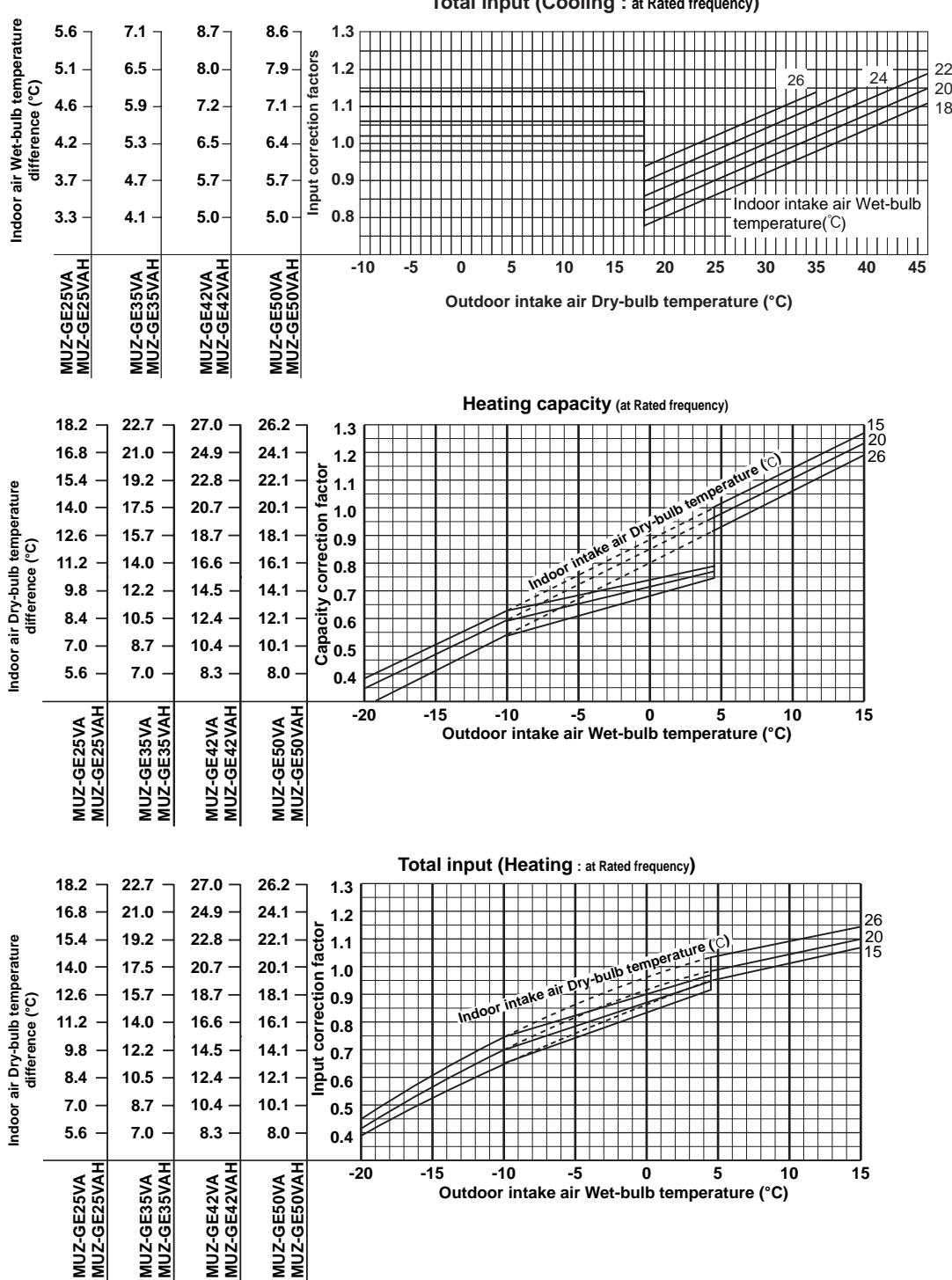
How to measure the indoor air wet-bulb / dry-bulb temperature difference

1. Attach at least 2 sets of wet and dry-bulb thermometers to the indoor air intake as shown in the figure, and at least 2 sets of wet and dry-bulb thermometers to the indoor air outlet. The thermometers must be attached to the position where air speed is high.
2. Attach at least 2 sets of wet and dry-bulb thermometers to the outdoor air intake. Cover the thermometers to prevent direct rays of the sun.
3. Check that the air filter is cleaned.
4. Open windows and doors of room.
5. Press the EMERGENCY OPERATION switch once (twice) to start the EMERGENCY COOL (HEAT) MODE.
6. When system stabilizes after more than 15 minutes, measure temperature and take an average temperature.
7. 10 minutes later, measure temperature again and check that the temperature does not change.



8-1. CAPACITY AND INPUT CURVES

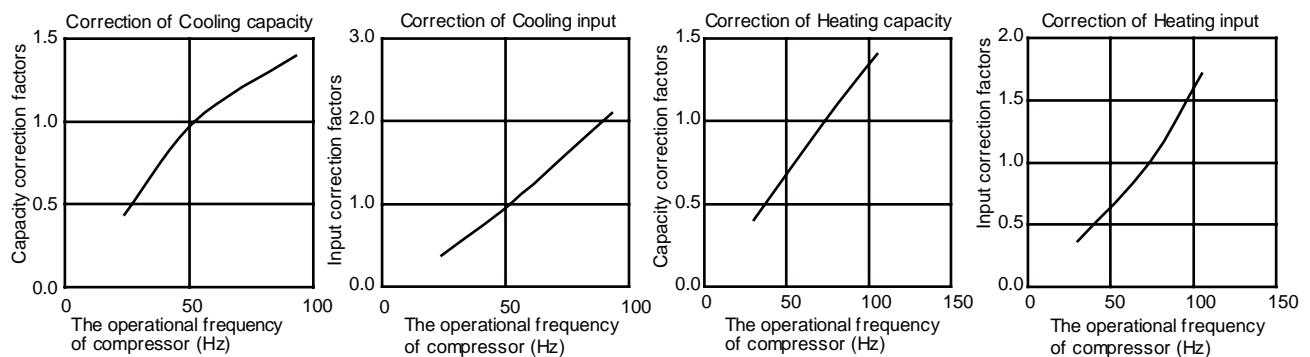




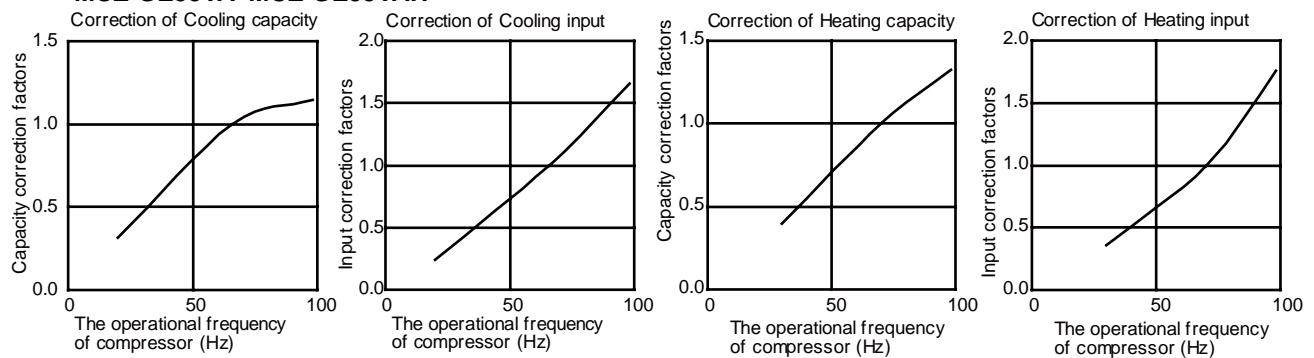
NOTE: The above broken lines are for the heating operation without any frost and defrost operation.

8-2. CAPACITY AND INPUT CORRECTION BY OPERATIONAL FREQUENCY OF COMPRESSOR

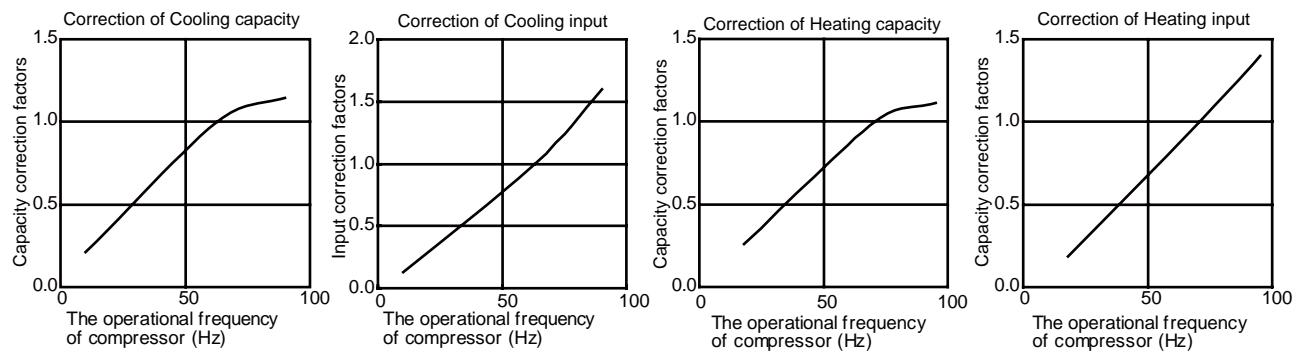
MUZ-GE25VA MUZ-GE25VAH



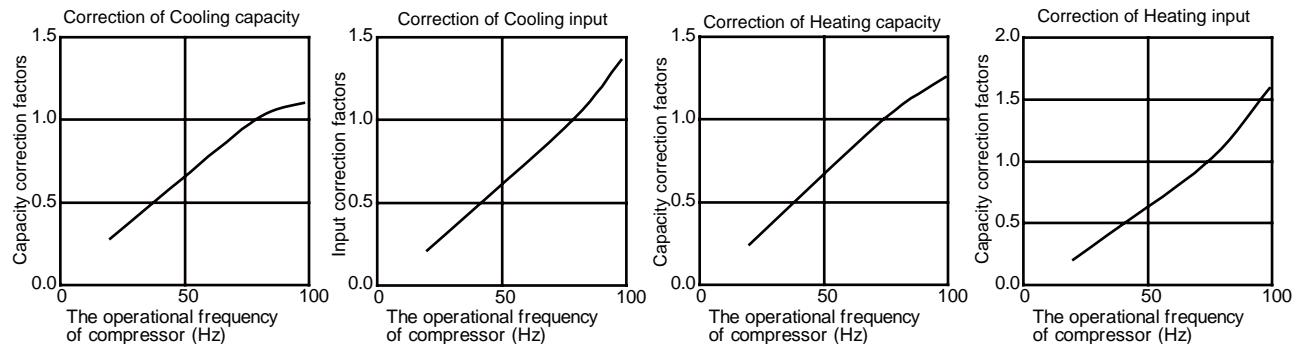
MUZ-GE35VA MUZ-GE35VAH



MUZ-GE42VA MUZ-GE42VAH



MUZ-GE50VA MUZ-GE50VAH



8-3. TEST RUN OPERATION (How to operate fixed-frequency operation)

1. Press EMERGENCY OPERATION switch to start COOL or HEAT mode (COOL: Press once, HEAT: Press twice).
2. Test run operation starts and continues to operate for 30 minutes.
3. Compressor operates at rated frequency in COOL mode or 58 Hz in HEAT mode.
4. Indoor fan operates at High speed.
5. After 30 minutes, test run operation finishes and EMERGENCY OPERATION starts (operation frequency of compressor varies).
6. To cancel test run operation (EMERGENCY OPERATION), press EMERGENCY OPERATION switch or any button on remote controller.

8-4. OUTDOOR LOW PRESSURE AND OUTDOOR UNIT CURRENT

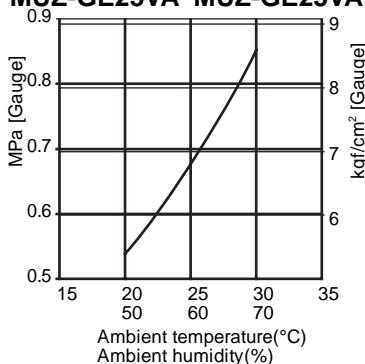
COOL operation

- ① Both indoor and outdoor unit are under the same temperature/humidity condition.
- ② Operation: TEST RUN OPERATION (Refer to 8-3.)

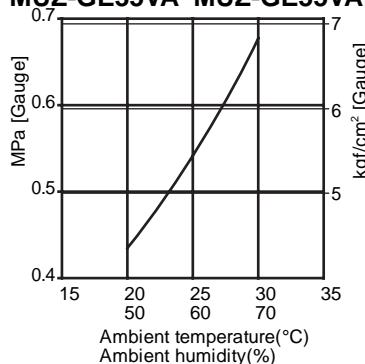
| Dry-bulb temperature (°C) | Relative humidity (%) |
|---------------------------|-----------------------|
| 20 | 50 |
| 25 | 60 |
| 30 | 70 |

Outdoor low pressure

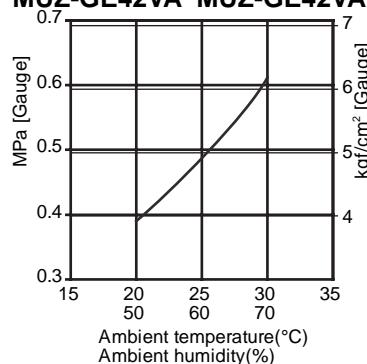
MUZ-GE25VA MUZ-GE25VAH



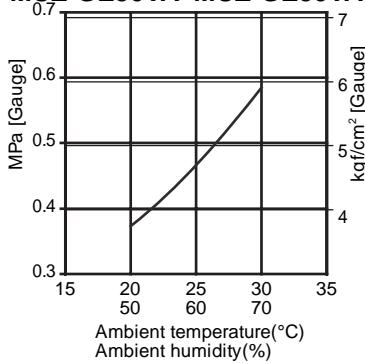
MUZ-GE35VA MUZ-GE35VAH



MUZ-GE42VA MUZ-GE42VAH



MUZ-GE50VA MUZ-GE50VAH

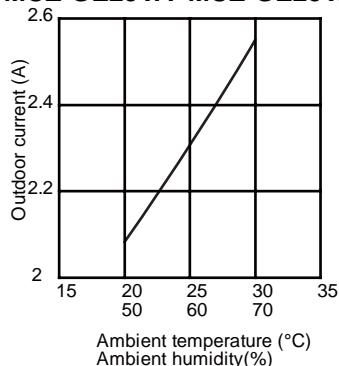


NOTE:

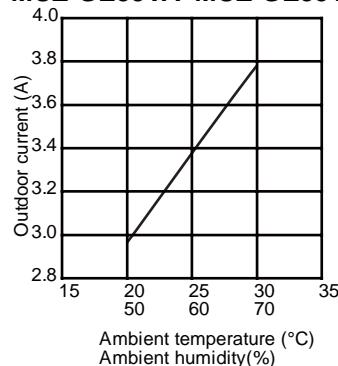
The unit of pressure has been changed to MPa on the international system of units (SI unit system)
The conversion factor is: 1 (MPa [Gauge]) = 10.2 (kgf/cm² [Gauge])

Outdoor unit current

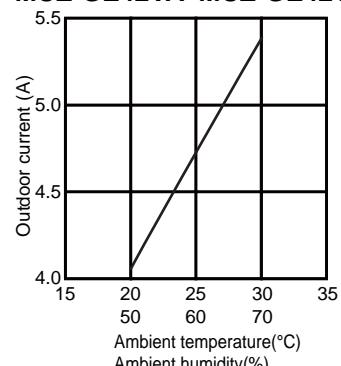
MUZ-GE25VA MUZ-GE25VAH



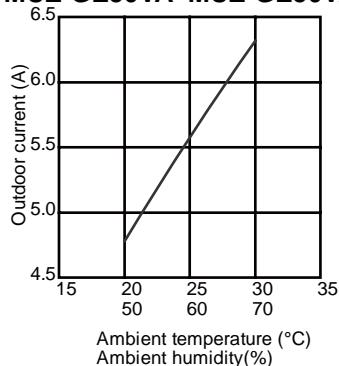
MUZ-GE35VA MUZ-GE35VAH



MUZ-GE42VA MUZ-GE42VAH



MUZ-GE50VA MUZ-GE50VAH



HEAT operation

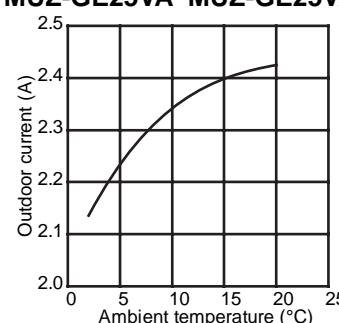
① Condition:

| | Indoor | Outdoor | | | |
|---------------------------|--------|---------|---|----|------|
| | | 2 | 7 | 15 | 20.0 |
| Dry bulb temperature (°C) | 20.0 | 2 | 7 | 15 | 20.0 |
| Wet bulb temperature (°C) | 14.5 | 1 | 6 | 12 | 14.5 |

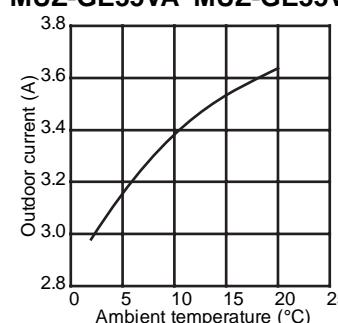
② Operation: Test run operation (Refer to 8-3.)

Outdoor unit current

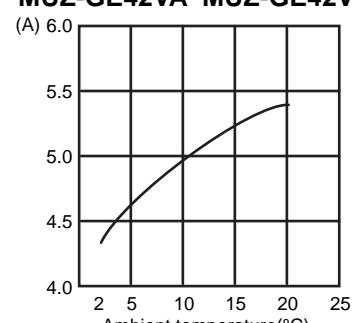
MUZ-GE25VA MUZ-GE25VAH



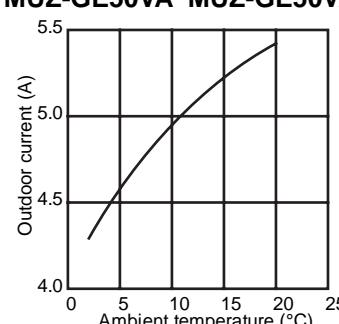
MUZ-GE35VA MUZ-GE35VAH



MUZ-GE42VA MUZ-GE42VAH



MUZ-GE50VA MUZ-GE50VAH



PERFORMANCE DATA COOL operation at Rated frequency

MUZ-GE25VA MUZ-GE25VAH

CAPACITY: 2.5 kW

SHF: 0.96

INPUT: 545 W

| INDOOR DB (°C) | INDOOR WB (°C) | OUTDOOR DB (°C) | | | | | | | | | | | | | | | |
|----------------|----------------|-----------------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|-------|
| | | 21 | | | | 25 | | | | 27 | | | | 30 | | | |
| | | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT |
| 21 | 18 | 2.94 | 2.29 | 0.78 | 436 | 2.81 | 2.19 | 0.78 | 458 | 2.70 | 2.11 | 0.78 | 480 | 2.60 | 2.03 | 0.78 | 501 |
| 21 | 20 | 3.06 | 2.02 | 0.66 | 458 | 2.94 | 1.94 | 0.66 | 485 | 2.85 | 1.88 | 0.66 | 496 | 2.75 | 1.82 | 0.66 | 518 |
| 22 | 18 | 2.94 | 2.41 | 0.82 | 436 | 2.81 | 2.31 | 0.82 | 458 | 2.70 | 2.21 | 0.82 | 480 | 2.60 | 2.13 | 0.82 | 501 |
| 22 | 20 | 3.06 | 2.14 | 0.70 | 458 | 2.94 | 2.06 | 0.70 | 485 | 2.85 | 2.00 | 0.70 | 496 | 2.75 | 1.93 | 0.70 | 518 |
| 22 | 22 | 3.19 | 1.85 | 0.58 | 474 | 3.08 | 1.78 | 0.58 | 504 | 3.00 | 1.74 | 0.58 | 518 | 2.88 | 1.67 | 0.58 | 540 |
| 23 | 18 | 2.94 | 2.53 | 0.86 | 436 | 2.81 | 2.42 | 0.86 | 458 | 2.70 | 2.32 | 0.86 | 480 | 2.60 | 2.24 | 0.86 | 501 |
| 23 | 20 | 3.06 | 2.27 | 0.74 | 458 | 2.94 | 2.17 | 0.74 | 485 | 2.85 | 2.11 | 0.74 | 496 | 2.75 | 2.04 | 0.74 | 518 |
| 23 | 22 | 3.19 | 1.98 | 0.62 | 474 | 3.08 | 1.91 | 0.62 | 504 | 3.00 | 1.86 | 0.62 | 518 | 2.88 | 1.78 | 0.62 | 540 |
| 24 | 18 | 2.94 | 2.64 | 0.90 | 436 | 2.81 | 2.53 | 0.90 | 458 | 2.70 | 2.43 | 0.90 | 480 | 2.60 | 2.34 | 0.90 | 501 |
| 24 | 20 | 3.06 | 2.39 | 0.78 | 458 | 2.94 | 2.29 | 0.78 | 485 | 2.85 | 2.22 | 0.78 | 496 | 2.75 | 2.15 | 0.78 | 518 |
| 24 | 22 | 3.19 | 2.10 | 0.66 | 474 | 3.08 | 2.03 | 0.66 | 504 | 3.00 | 1.98 | 0.66 | 518 | 2.88 | 1.90 | 0.66 | 540 |
| 24 | 24 | 3.35 | 1.81 | 0.54 | 496 | 3.23 | 1.74 | 0.54 | 523 | 3.15 | 1.70 | 0.54 | 540 | 3.05 | 1.65 | 0.54 | 567 |
| 25 | 18 | 2.94 | 2.76 | 0.94 | 436 | 2.81 | 2.64 | 0.94 | 458 | 2.70 | 2.54 | 0.94 | 480 | 2.60 | 2.44 | 0.94 | 501 |
| 25 | 20 | 3.06 | 2.51 | 0.82 | 458 | 2.94 | 2.41 | 0.82 | 485 | 2.85 | 2.34 | 0.82 | 496 | 2.75 | 2.26 | 0.82 | 518 |
| 25 | 22 | 3.19 | 2.23 | 0.70 | 474 | 3.08 | 2.15 | 0.70 | 504 | 3.00 | 2.10 | 0.70 | 518 | 2.88 | 2.01 | 0.70 | 540 |
| 25 | 24 | 3.35 | 1.94 | 0.58 | 496 | 3.23 | 1.87 | 0.58 | 523 | 3.15 | 1.83 | 0.58 | 540 | 3.05 | 1.77 | 0.58 | 567 |
| 26 | 18 | 2.94 | 2.88 | 0.98 | 436 | 2.81 | 2.76 | 0.98 | 458 | 2.70 | 2.65 | 0.98 | 480 | 2.60 | 2.55 | 0.98 | 501 |
| 26 | 20 | 3.06 | 2.63 | 0.86 | 458 | 2.94 | 2.53 | 0.86 | 485 | 2.85 | 2.45 | 0.86 | 496 | 2.75 | 2.37 | 0.86 | 518 |
| 26 | 22 | 3.19 | 2.36 | 0.74 | 474 | 3.08 | 2.28 | 0.74 | 504 | 3.00 | 2.22 | 0.74 | 518 | 2.88 | 2.13 | 0.74 | 540 |
| 26 | 24 | 3.35 | 2.08 | 0.62 | 496 | 3.23 | 2.00 | 0.62 | 523 | 3.15 | 1.95 | 0.62 | 540 | 3.05 | 1.89 | 0.62 | 567 |
| 26 | 26 | 3.45 | 1.73 | 0.50 | 523 | 3.35 | 1.68 | 0.50 | 550 | 3.30 | 1.65 | 0.50 | 567 | 3.20 | 1.60 | 0.50 | 583 |
| 27 | 18 | 2.94 | 2.94 | 1.00 | 436 | 2.81 | 2.81 | 1.00 | 458 | 2.70 | 2.70 | 1.00 | 480 | 2.60 | 2.60 | 1.00 | 501 |
| 27 | 20 | 3.06 | 2.76 | 0.90 | 458 | 2.94 | 2.64 | 0.90 | 485 | 2.85 | 2.57 | 0.90 | 496 | 2.75 | 2.48 | 0.90 | 518 |
| 27 | 22 | 3.19 | 2.49 | 0.78 | 474 | 3.08 | 2.40 | 0.78 | 504 | 3.00 | 2.34 | 0.78 | 518 | 2.88 | 2.24 | 0.78 | 540 |
| 27 | 24 | 3.35 | 2.21 | 0.66 | 496 | 3.23 | 2.13 | 0.66 | 523 | 3.15 | 2.08 | 0.66 | 540 | 3.05 | 2.01 | 0.66 | 567 |
| 27 | 26 | 3.45 | 1.86 | 0.54 | 523 | 3.35 | 1.81 | 0.54 | 550 | 3.30 | 1.78 | 0.54 | 567 | 3.20 | 1.73 | 0.54 | 583 |
| 28 | 18 | 2.94 | 2.94 | 1.00 | 436 | 2.81 | 2.81 | 1.00 | 458 | 2.70 | 2.70 | 1.00 | 480 | 2.60 | 2.60 | 1.00 | 501 |
| 28 | 20 | 3.06 | 2.88 | 0.94 | 458 | 2.94 | 2.76 | 0.94 | 485 | 2.85 | 2.68 | 0.94 | 496 | 2.75 | 2.59 | 0.94 | 518 |
| 28 | 22 | 3.19 | 2.61 | 0.82 | 474 | 3.08 | 2.52 | 0.82 | 504 | 3.00 | 2.46 | 0.82 | 518 | 2.88 | 2.36 | 0.82 | 540 |
| 28 | 24 | 3.35 | 2.35 | 0.70 | 496 | 3.23 | 2.26 | 0.70 | 523 | 3.15 | 2.21 | 0.70 | 540 | 3.05 | 2.14 | 0.70 | 567 |
| 28 | 26 | 3.45 | 2.00 | 0.58 | 523 | 3.35 | 1.94 | 0.58 | 550 | 3.30 | 1.91 | 0.58 | 567 | 3.20 | 1.86 | 0.58 | 583 |
| 29 | 18 | 2.94 | 2.94 | 1.00 | 436 | 2.81 | 2.81 | 1.00 | 458 | 2.70 | 2.70 | 1.00 | 480 | 2.60 | 2.60 | 1.00 | 501 |
| 29 | 20 | 3.06 | 3.00 | 0.98 | 458 | 2.94 | 2.88 | 0.98 | 485 | 2.85 | 2.79 | 0.98 | 496 | 2.75 | 2.70 | 0.98 | 518 |
| 29 | 22 | 3.19 | 2.74 | 0.86 | 474 | 3.08 | 2.64 | 0.86 | 504 | 3.00 | 2.58 | 0.86 | 518 | 2.88 | 2.47 | 0.86 | 540 |
| 29 | 24 | 3.35 | 2.48 | 0.74 | 496 | 3.23 | 2.39 | 0.74 | 523 | 3.15 | 2.33 | 0.74 | 540 | 3.05 | 2.26 | 0.74 | 567 |
| 29 | 26 | 3.45 | 2.14 | 0.62 | 523 | 3.35 | 2.08 | 0.62 | 550 | 3.30 | 2.05 | 0.62 | 567 | 3.20 | 1.98 | 0.62 | 583 |
| 30 | 18 | 2.94 | 2.94 | 1.00 | 436 | 2.81 | 2.81 | 1.00 | 458 | 2.70 | 2.70 | 1.00 | 480 | 2.60 | 2.60 | 1.00 | 501 |
| 30 | 20 | 3.06 | 3.06 | 1.00 | 458 | 2.94 | 2.94 | 1.00 | 485 | 2.85 | 2.85 | 1.00 | 496 | 2.75 | 2.75 | 1.00 | 518 |
| 30 | 22 | 3.19 | 2.87 | 0.90 | 474 | 3.08 | 2.77 | 0.90 | 504 | 3.00 | 2.70 | 0.90 | 518 | 2.88 | 2.59 | 0.90 | 540 |
| 30 | 24 | 3.35 | 2.61 | 0.78 | 496 | 3.23 | 2.52 | 0.78 | 523 | 3.15 | 2.46 | 0.78 | 540 | 3.05 | 2.38 | 0.78 | 567 |
| 30 | 26 | 3.45 | 2.28 | 0.66 | 523 | 3.35 | 2.21 | 0.66 | 550 | 3.30 | 2.18 | 0.66 | 567 | 3.20 | 2.11 | 0.66 | 583 |
| 31 | 18 | 2.94 | 2.94 | 1.00 | 436 | 2.81 | 2.81 | 1.00 | 458 | 2.70 | 2.70 | 1.00 | 480 | 2.60 | 2.60 | 1.00 | 501 |
| 31 | 20 | 3.06 | 3.06 | 1.00 | 458 | 2.94 | 2.94 | 1.00 | 485 | 2.85 | 2.85 | 1.00 | 496 | 2.75 | 2.75 | 1.00 | 518 |
| 31 | 22 | 3.19 | 3.00 | 0.94 | 474 | 3.08 | 2.89 | 0.94 | 504 | 3.00 | 2.82 | 0.94 | 518 | 2.88 | 2.70 | 0.94 | 540 |
| 31 | 24 | 3.35 | 2.75 | 0.82 | 496 | 3.23 | 2.64 | 0.82 | 523 | 3.15 | 2.58 | 0.82 | 540 | 3.05 | 2.50 | 0.82 | 567 |
| 31 | 26 | 3.45 | 2.42 | 0.70 | 523 | 3.35 | 2.35 | 0.70 | 550 | 3.30 | 2.31 | 0.70 | 567 | 3.20 | 2.24 | 0.70 | 583 |
| 32 | 18 | 2.94 | 2.94 | 1.00 | 436 | 2.81 | 2.81 | 1.00 | 458 | 2.70 | 2.70 | 1.00 | 480 | 2.60 | 2.60 | 1.00 | 501 |
| 32 | 20 | 3.06 | 3.06 | 1.00 | 458 | 2.94 | 2.94 | 1.00 | 485 | 2.85 | 2.85 | 1.00 | 496 | 2.75 | 2.75 | 1.00 | 518 |
| 32 | 22 | 3.19 | 3.12 | 0.98 | 474 | 3.08 | 3.01 | 0.98 | 504 | 3.00 | 2.94 | 0.98 | 518 | 2.88 | 2.82 | 0.98 | 540 |
| 32 | 24 | 3.35 | 2.88 | 0.86 | 496 | 3.23 | 2.77 | 0.86 | 523 | 3.15 | 2.71 | 0.86 | 540 | 3.05 | 2.62 | 0.86 | 567 |
| 32 | 26 | 3.45 | 2.55 | 0.74 | 523 | 3.35 | 2.48 | 0.74 | 550 | 3.30 | 2.44 | 0.74 | 567 | 3.20 | 2.37 | 0.74 | 583 |

NOTE Q : Total capacity (kW)

SHF : Sensible heat factor

DB : Dry-bulb temperature

SHC : Sensible heat capacity (kW)

INPUT : Total power input (W)

DB : Dry-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-GE25VA MUZ-GE25VAH

CAPACITY: 2.5 kW SHF: 0.96 INPUT: 545 W

| INDOOR DB (°C) | INDOOR WB (°C) | OUTDOOR DB (°C) | | | | | | | | | | | |
|----------------|----------------|-----------------|------|------|-------|------|------|------|-------|------|------|------|-------|
| | | 35 | | | | 40 | | | | 46 | | | |
| | | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT |
| 21 | 18 | 2.45 | 1.91 | 0.78 | 534 | 2.25 | 1.76 | 0.78 | 567 | 2.08 | 1.62 | 0.78 | 589 |
| 21 | 20 | 2.58 | 1.70 | 0.66 | 556 | 2.40 | 1.58 | 0.66 | 583 | 2.23 | 1.47 | 0.66 | 616 |
| 22 | 18 | 2.45 | 2.01 | 0.82 | 534 | 2.25 | 1.85 | 0.82 | 567 | 2.08 | 1.70 | 0.82 | 589 |
| 22 | 20 | 2.58 | 1.80 | 0.70 | 556 | 2.40 | 1.68 | 0.70 | 583 | 2.23 | 1.56 | 0.70 | 616 |
| 22 | 22 | 2.73 | 1.58 | 0.58 | 578 | 2.55 | 1.48 | 0.58 | 610 | 2.38 | 1.38 | 0.58 | 632 |
| 23 | 18 | 2.45 | 2.11 | 0.86 | 534 | 2.25 | 1.94 | 0.86 | 567 | 2.08 | 1.78 | 0.86 | 589 |
| 23 | 20 | 2.58 | 1.91 | 0.74 | 556 | 2.40 | 1.78 | 0.74 | 583 | 2.23 | 1.65 | 0.74 | 616 |
| 23 | 22 | 2.73 | 1.69 | 0.62 | 578 | 2.55 | 1.58 | 0.62 | 610 | 2.38 | 1.47 | 0.62 | 632 |
| 24 | 18 | 2.45 | 2.21 | 0.90 | 534 | 2.25 | 2.03 | 0.90 | 567 | 2.08 | 1.87 | 0.90 | 589 |
| 24 | 20 | 2.58 | 2.01 | 0.78 | 556 | 2.40 | 1.87 | 0.78 | 583 | 2.23 | 1.74 | 0.78 | 616 |
| 24 | 22 | 2.73 | 1.80 | 0.66 | 578 | 2.55 | 1.68 | 0.66 | 610 | 2.38 | 1.57 | 0.66 | 632 |
| 24 | 24 | 2.88 | 1.55 | 0.54 | 600 | 2.70 | 1.46 | 0.54 | 627 | 2.55 | 1.38 | 0.54 | 654 |
| 25 | 18 | 2.45 | 2.30 | 0.94 | 534 | 2.25 | 2.12 | 0.94 | 567 | 2.08 | 1.95 | 0.94 | 589 |
| 25 | 20 | 2.58 | 2.11 | 0.82 | 556 | 2.40 | 1.97 | 0.82 | 583 | 2.23 | 1.82 | 0.82 | 616 |
| 25 | 22 | 2.73 | 1.91 | 0.70 | 578 | 2.55 | 1.79 | 0.70 | 610 | 2.38 | 1.66 | 0.70 | 632 |
| 25 | 24 | 2.88 | 1.67 | 0.58 | 600 | 2.70 | 1.57 | 0.58 | 627 | 2.55 | 1.48 | 0.58 | 654 |
| 26 | 18 | 2.45 | 2.40 | 0.98 | 534 | 2.25 | 2.21 | 0.98 | 567 | 2.08 | 2.03 | 0.98 | 589 |
| 26 | 20 | 2.58 | 2.21 | 0.86 | 556 | 2.40 | 2.06 | 0.86 | 583 | 2.23 | 1.91 | 0.86 | 616 |
| 26 | 22 | 2.73 | 2.02 | 0.74 | 578 | 2.55 | 1.89 | 0.74 | 610 | 2.38 | 1.76 | 0.74 | 632 |
| 26 | 24 | 2.88 | 1.78 | 0.62 | 600 | 2.70 | 1.67 | 0.62 | 627 | 2.55 | 1.58 | 0.62 | 654 |
| 26 | 26 | 3.03 | 1.51 | 0.50 | 621 | 2.85 | 1.43 | 0.50 | 649 | 2.68 | 1.34 | 0.50 | 676 |
| 27 | 18 | 2.45 | 2.45 | 1.00 | 534 | 2.25 | 2.25 | 1.00 | 567 | 2.08 | 2.08 | 1.00 | 589 |
| 27 | 20 | 2.58 | 2.32 | 0.90 | 556 | 2.40 | 2.16 | 0.90 | 583 | 2.23 | 2.00 | 0.90 | 616 |
| 27 | 22 | 2.73 | 2.13 | 0.78 | 578 | 2.55 | 1.99 | 0.78 | 610 | 2.38 | 1.85 | 0.78 | 632 |
| 27 | 24 | 2.88 | 1.90 | 0.66 | 600 | 2.70 | 1.78 | 0.66 | 627 | 2.55 | 1.68 | 0.66 | 654 |
| 27 | 26 | 3.03 | 1.63 | 0.54 | 621 | 2.85 | 1.54 | 0.54 | 649 | 2.68 | 1.44 | 0.54 | 676 |
| 28 | 18 | 2.45 | 2.45 | 1.00 | 534 | 2.25 | 2.25 | 1.00 | 567 | 2.08 | 2.08 | 1.00 | 589 |
| 28 | 20 | 2.58 | 2.42 | 0.94 | 556 | 2.40 | 2.26 | 0.94 | 583 | 2.23 | 2.09 | 0.94 | 616 |
| 28 | 22 | 2.73 | 2.23 | 0.82 | 578 | 2.55 | 2.09 | 0.82 | 610 | 2.38 | 1.95 | 0.82 | 632 |
| 28 | 24 | 2.88 | 2.01 | 0.70 | 600 | 2.70 | 1.89 | 0.70 | 627 | 2.55 | 1.79 | 0.70 | 654 |
| 28 | 26 | 3.03 | 1.75 | 0.58 | 621 | 2.85 | 1.65 | 0.58 | 649 | 2.68 | 1.55 | 0.58 | 676 |
| 29 | 18 | 2.45 | 2.45 | 1.00 | 534 | 2.25 | 2.25 | 1.00 | 567 | 2.08 | 2.08 | 1.00 | 589 |
| 29 | 20 | 2.58 | 2.52 | 0.98 | 556 | 2.40 | 2.35 | 0.98 | 583 | 2.23 | 2.18 | 0.98 | 616 |
| 29 | 22 | 2.73 | 2.34 | 0.86 | 578 | 2.55 | 2.19 | 0.86 | 610 | 2.38 | 2.04 | 0.86 | 632 |
| 29 | 24 | 2.88 | 2.13 | 0.74 | 600 | 2.70 | 2.00 | 0.74 | 627 | 2.55 | 1.89 | 0.74 | 654 |
| 29 | 26 | 3.03 | 1.88 | 0.62 | 621 | 2.85 | 1.77 | 0.62 | 649 | 2.68 | 1.66 | 0.62 | 676 |
| 30 | 18 | 2.45 | 2.45 | 1.00 | 534 | 2.25 | 2.25 | 1.00 | 567 | 2.08 | 2.08 | 1.00 | 589 |
| 30 | 20 | 2.58 | 2.58 | 1.00 | 556 | 2.40 | 2.40 | 1.00 | 583 | 2.23 | 2.23 | 1.00 | 616 |
| 30 | 22 | 2.73 | 2.45 | 0.90 | 578 | 2.55 | 2.30 | 0.90 | 610 | 2.38 | 2.14 | 0.90 | 632 |
| 30 | 24 | 2.88 | 2.24 | 0.78 | 600 | 2.70 | 2.11 | 0.78 | 627 | 2.55 | 1.99 | 0.78 | 654 |
| 30 | 26 | 3.03 | 2.00 | 0.66 | 621 | 2.85 | 1.88 | 0.66 | 649 | 2.68 | 1.77 | 0.66 | 676 |
| 31 | 18 | 2.45 | 2.45 | 1.00 | 534 | 2.25 | 2.25 | 1.00 | 567 | 2.08 | 2.08 | 1.00 | 589 |
| 31 | 20 | 2.58 | 2.58 | 1.00 | 556 | 2.40 | 2.40 | 1.00 | 583 | 2.23 | 2.23 | 1.00 | 616 |
| 31 | 22 | 2.73 | 2.56 | 0.94 | 578 | 2.55 | 2.40 | 0.94 | 610 | 2.38 | 2.23 | 0.94 | 632 |
| 31 | 24 | 2.88 | 2.36 | 0.82 | 600 | 2.70 | 2.21 | 0.82 | 627 | 2.55 | 2.09 | 0.82 | 654 |
| 31 | 26 | 3.03 | 2.12 | 0.70 | 621 | 2.85 | 2.00 | 0.70 | 649 | 2.68 | 1.87 | 0.70 | 676 |
| 32 | 18 | 2.45 | 2.45 | 1.00 | 534 | 2.25 | 2.25 | 1.00 | 567 | 2.08 | 2.08 | 1.00 | 589 |
| 32 | 20 | 2.58 | 2.58 | 1.00 | 556 | 2.40 | 2.40 | 1.00 | 583 | 2.23 | 2.23 | 1.00 | 616 |
| 32 | 22 | 2.73 | 2.67 | 0.98 | 578 | 2.55 | 2.50 | 0.98 | 610 | 2.38 | 2.33 | 0.98 | 632 |
| 32 | 24 | 2.88 | 2.47 | 0.86 | 600 | 2.70 | 2.32 | 0.86 | 627 | 2.55 | 2.19 | 0.86 | 654 |
| 32 | 26 | 3.03 | 2.24 | 0.74 | 621 | 2.85 | 2.11 | 0.74 | 649 | 2.68 | 1.98 | 0.74 | 676 |

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
 SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-GE35VA MUZ-GE35VAH

CAPACITY: 3.5 kW

SHF: 0.82

INPUT: 865 W

| INDOOR DB (°C) | INDOOR WB (°C) | OUTDOOR DB (°C) | | | | | | | | | | | | | | | |
|----------------|----------------|-----------------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|-------|
| | | 21 | | | | 25 | | | | 27 | | | | 30 | | | |
| | | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT |
| 21 | 18 | 4.11 | 2.63 | 0.64 | 692 | 3.94 | 2.52 | 0.64 | 727 | 3.78 | 2.42 | 0.64 | 761 | 3.64 | 2.33 | 0.64 | 796 |
| 21 | 20 | 4.29 | 2.23 | 0.52 | 727 | 4.11 | 2.14 | 0.52 | 770 | 3.99 | 2.07 | 0.52 | 787 | 3.85 | 2.00 | 0.52 | 822 |
| 22 | 18 | 4.11 | 2.80 | 0.68 | 692 | 3.94 | 2.68 | 0.68 | 727 | 3.78 | 2.57 | 0.68 | 761 | 3.64 | 2.48 | 0.68 | 796 |
| 22 | 20 | 4.29 | 2.40 | 0.56 | 727 | 4.11 | 2.30 | 0.56 | 770 | 3.99 | 2.23 | 0.56 | 787 | 3.85 | 2.16 | 0.56 | 822 |
| 22 | 22 | 4.46 | 1.96 | 0.44 | 753 | 4.31 | 1.89 | 0.44 | 800 | 4.20 | 1.85 | 0.44 | 822 | 4.03 | 1.77 | 0.44 | 856 |
| 23 | 18 | 4.11 | 2.96 | 0.72 | 692 | 3.94 | 2.84 | 0.72 | 727 | 3.78 | 2.72 | 0.72 | 761 | 3.64 | 2.62 | 0.72 | 796 |
| 23 | 20 | 4.29 | 2.57 | 0.60 | 727 | 4.11 | 2.47 | 0.60 | 770 | 3.99 | 2.39 | 0.60 | 787 | 3.85 | 2.31 | 0.60 | 822 |
| 23 | 22 | 4.46 | 2.14 | 0.48 | 753 | 4.31 | 2.07 | 0.48 | 800 | 4.20 | 2.02 | 0.48 | 822 | 4.03 | 1.93 | 0.48 | 856 |
| 24 | 18 | 4.11 | 3.13 | 0.76 | 692 | 3.94 | 2.99 | 0.76 | 727 | 3.78 | 2.87 | 0.76 | 761 | 3.64 | 2.77 | 0.76 | 796 |
| 24 | 20 | 4.29 | 2.74 | 0.64 | 727 | 4.11 | 2.63 | 0.64 | 770 | 3.99 | 2.55 | 0.64 | 787 | 3.85 | 2.46 | 0.64 | 822 |
| 24 | 22 | 4.46 | 2.32 | 0.52 | 753 | 4.31 | 2.24 | 0.52 | 800 | 4.20 | 2.18 | 0.52 | 822 | 4.03 | 2.09 | 0.52 | 856 |
| 24 | 24 | 4.69 | 1.88 | 0.40 | 787 | 4.52 | 1.81 | 0.40 | 830 | 4.41 | 1.76 | 0.40 | 856 | 4.27 | 1.71 | 0.40 | 900 |
| 25 | 18 | 4.11 | 3.29 | 0.80 | 692 | 3.94 | 3.15 | 0.80 | 727 | 3.78 | 3.02 | 0.80 | 761 | 3.64 | 2.91 | 0.80 | 796 |
| 25 | 20 | 4.29 | 2.92 | 0.68 | 727 | 4.11 | 2.80 | 0.68 | 770 | 3.99 | 2.71 | 0.68 | 787 | 3.85 | 2.62 | 0.68 | 822 |
| 25 | 22 | 4.46 | 2.50 | 0.56 | 753 | 4.31 | 2.41 | 0.56 | 800 | 4.20 | 2.35 | 0.56 | 822 | 4.03 | 2.25 | 0.56 | 856 |
| 25 | 24 | 4.69 | 2.06 | 0.44 | 787 | 4.52 | 1.99 | 0.44 | 830 | 4.41 | 1.94 | 0.44 | 856 | 4.27 | 1.88 | 0.44 | 900 |
| 26 | 18 | 4.11 | 3.45 | 0.84 | 692 | 3.94 | 3.31 | 0.84 | 727 | 3.78 | 3.18 | 0.84 | 761 | 3.64 | 3.06 | 0.84 | 796 |
| 26 | 20 | 4.29 | 3.09 | 0.72 | 727 | 4.11 | 2.96 | 0.72 | 770 | 3.99 | 2.87 | 0.72 | 787 | 3.85 | 2.77 | 0.72 | 822 |
| 26 | 22 | 4.46 | 2.68 | 0.60 | 753 | 4.31 | 2.58 | 0.60 | 800 | 4.20 | 2.52 | 0.60 | 822 | 4.03 | 2.42 | 0.60 | 856 |
| 26 | 24 | 4.69 | 2.25 | 0.48 | 787 | 4.52 | 2.17 | 0.48 | 830 | 4.41 | 2.12 | 0.48 | 856 | 4.27 | 2.05 | 0.48 | 900 |
| 26 | 26 | 4.83 | 1.74 | 0.36 | 830 | 4.69 | 1.69 | 0.36 | 874 | 4.62 | 1.66 | 0.36 | 900 | 4.48 | 1.61 | 0.36 | 926 |
| 27 | 18 | 4.11 | 3.62 | 0.88 | 692 | 3.94 | 3.47 | 0.88 | 727 | 3.78 | 3.33 | 0.88 | 761 | 3.64 | 3.20 | 0.88 | 796 |
| 27 | 20 | 4.29 | 3.26 | 0.76 | 727 | 4.11 | 3.13 | 0.76 | 770 | 3.99 | 3.03 | 0.76 | 787 | 3.85 | 2.93 | 0.76 | 822 |
| 27 | 22 | 4.46 | 2.86 | 0.64 | 753 | 4.31 | 2.76 | 0.64 | 800 | 4.20 | 2.69 | 0.64 | 822 | 4.03 | 2.58 | 0.64 | 856 |
| 27 | 24 | 4.69 | 2.44 | 0.52 | 787 | 4.52 | 2.35 | 0.52 | 830 | 4.41 | 2.29 | 0.52 | 856 | 4.27 | 2.22 | 0.52 | 900 |
| 27 | 26 | 4.83 | 1.93 | 0.40 | 830 | 4.69 | 1.88 | 0.40 | 874 | 4.62 | 1.85 | 0.40 | 900 | 4.48 | 1.79 | 0.40 | 926 |
| 28 | 18 | 4.11 | 3.78 | 0.92 | 692 | 3.94 | 3.62 | 0.92 | 727 | 3.78 | 3.48 | 0.92 | 761 | 3.64 | 3.35 | 0.92 | 796 |
| 28 | 20 | 4.29 | 3.43 | 0.80 | 727 | 4.11 | 3.29 | 0.80 | 770 | 3.99 | 3.19 | 0.80 | 787 | 3.85 | 3.08 | 0.80 | 822 |
| 28 | 22 | 4.46 | 3.03 | 0.68 | 753 | 4.31 | 2.93 | 0.68 | 800 | 4.20 | 2.86 | 0.68 | 822 | 4.03 | 2.74 | 0.68 | 856 |
| 28 | 24 | 4.69 | 2.63 | 0.56 | 787 | 4.52 | 2.53 | 0.56 | 830 | 4.41 | 2.47 | 0.56 | 856 | 4.27 | 2.39 | 0.56 | 900 |
| 28 | 26 | 4.83 | 2.13 | 0.44 | 830 | 4.69 | 2.06 | 0.44 | 874 | 4.62 | 2.03 | 0.44 | 900 | 4.48 | 1.97 | 0.44 | 926 |
| 29 | 18 | 4.11 | 3.95 | 0.96 | 692 | 3.94 | 3.78 | 0.96 | 727 | 3.78 | 3.63 | 0.96 | 761 | 3.64 | 3.49 | 0.96 | 796 |
| 29 | 20 | 4.29 | 3.60 | 0.84 | 727 | 4.11 | 3.45 | 0.84 | 770 | 3.99 | 3.35 | 0.84 | 787 | 3.85 | 3.23 | 0.84 | 822 |
| 29 | 22 | 4.46 | 3.21 | 0.72 | 753 | 4.31 | 3.10 | 0.72 | 800 | 4.20 | 3.02 | 0.72 | 822 | 4.03 | 2.90 | 0.72 | 856 |
| 29 | 24 | 4.69 | 2.81 | 0.60 | 787 | 4.52 | 2.71 | 0.60 | 830 | 4.41 | 2.65 | 0.60 | 856 | 4.27 | 2.56 | 0.60 | 900 |
| 29 | 26 | 4.83 | 2.32 | 0.48 | 830 | 4.69 | 2.25 | 0.48 | 874 | 4.62 | 2.22 | 0.48 | 900 | 4.48 | 2.15 | 0.48 | 926 |
| 30 | 18 | 4.11 | 4.11 | 1.00 | 692 | 3.94 | 3.94 | 1.00 | 727 | 3.78 | 3.78 | 1.00 | 761 | 3.64 | 3.64 | 1.00 | 796 |
| 30 | 20 | 4.29 | 3.77 | 0.88 | 727 | 4.11 | 3.62 | 0.88 | 770 | 3.99 | 3.51 | 0.88 | 787 | 3.85 | 3.39 | 0.88 | 822 |
| 30 | 22 | 4.46 | 3.39 | 0.76 | 753 | 4.31 | 3.27 | 0.76 | 800 | 4.20 | 3.19 | 0.76 | 822 | 4.03 | 3.06 | 0.76 | 856 |
| 30 | 24 | 4.69 | 3.00 | 0.64 | 787 | 4.52 | 2.89 | 0.64 | 830 | 4.41 | 2.82 | 0.64 | 856 | 4.27 | 2.73 | 0.64 | 900 |
| 30 | 26 | 4.83 | 2.51 | 0.52 | 830 | 4.69 | 2.44 | 0.52 | 874 | 4.62 | 2.40 | 0.52 | 900 | 4.48 | 2.33 | 0.52 | 926 |
| 31 | 18 | 4.11 | 4.11 | 1.00 | 692 | 3.94 | 3.94 | 1.00 | 727 | 3.78 | 3.78 | 1.00 | 761 | 3.64 | 3.64 | 1.00 | 796 |
| 31 | 20 | 4.29 | 3.94 | 0.92 | 727 | 4.11 | 3.78 | 0.92 | 770 | 3.99 | 3.67 | 0.92 | 787 | 3.85 | 3.54 | 0.92 | 822 |
| 31 | 22 | 4.46 | 3.57 | 0.80 | 753 | 4.31 | 3.44 | 0.80 | 800 | 4.20 | 3.36 | 0.80 | 822 | 4.03 | 3.22 | 0.80 | 856 |
| 31 | 24 | 4.69 | 3.19 | 0.68 | 787 | 4.52 | 3.07 | 0.68 | 830 | 4.41 | 3.00 | 0.68 | 856 | 4.27 | 2.90 | 0.68 | 900 |
| 31 | 26 | 4.83 | 2.70 | 0.56 | 830 | 4.69 | 2.63 | 0.56 | 874 | 4.62 | 2.59 | 0.56 | 900 | 4.48 | 2.51 | 0.56 | 926 |
| 32 | 18 | 4.11 | 4.11 | 1.00 | 692 | 3.94 | 3.94 | 1.00 | 727 | 3.78 | 3.78 | 1.00 | 761 | 3.64 | 3.64 | 1.00 | 796 |
| 32 | 20 | 4.29 | 4.12 | 0.96 | 727 | 4.11 | 3.95 | 0.96 | 770 | 3.99 | 3.83 | 0.96 | 787 | 3.85 | 3.70 | 0.96 | 822 |
| 32 | 22 | 4.46 | 3.75 | 0.84 | 753 | 4.31 | 3.62 | 0.84 | 800 | 4.20 | 3.53 | 0.84 | 822 | 4.03 | 3.38 | 0.84 | 856 |
| 32 | 24 | 4.69 | 3.38 | 0.72 | 787 | 4.52 | 3.25 | 0.72 | 830 | 4.41 | 3.18 | 0.72 | 856 | 4.27 | 3.07 | 0.72 | 900 |
| 32 | 26 | 4.83 | 2.90 | 0.60 | 830 | 4.69 | 2.81 | 0.60 | 874 | 4.62 | 2.77 | 0.60 | 900 | 4.48 | 2.69 | 0.60 | 926 |

NOTE Q : Total capacity (kW)

SHF : Sensible heat factor

DB : Dry-bulb temperature

SHC : Sensible heat capacity (kW)

INPUT : Total power input (W)

WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-GE35VA MUZ-GE35VAH

CAPACITY: 3.5 kW

SHF: 0.82

INPUT: 865 W

| INDOOR DB (°C) | INDOOR WB (°C) | OUTDOOR DB (°C) | | | | | | | | | | | |
|-------------------|-------------------|-----------------|------|------|-------|------|------|------|-------|------|------|------|-------|
| | | 35 | | | | 40 | | | | 46 | | | |
| | | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT |
| 21 | 18 | 3.43 | 2.20 | 0.64 | 848 | 3.15 | 2.02 | 0.64 | 900 | 2.91 | 1.86 | 0.64 | 934 |
| 21 | 20 | 3.61 | 1.87 | 0.52 | 882 | 3.36 | 1.75 | 0.52 | 926 | 3.12 | 1.62 | 0.52 | 977 |
| 22 | 18 | 3.43 | 2.33 | 0.68 | 848 | 3.15 | 2.14 | 0.68 | 900 | 2.91 | 1.98 | 0.68 | 934 |
| 22 | 20 | 3.61 | 2.02 | 0.56 | 882 | 3.36 | 1.88 | 0.56 | 926 | 3.12 | 1.74 | 0.56 | 977 |
| 22 | 22 | 3.82 | 1.68 | 0.44 | 917 | 3.57 | 1.57 | 0.44 | 969 | 3.33 | 1.46 | 0.44 | 1003 |
| 23 | 18 | 3.43 | 2.47 | 0.72 | 848 | 3.15 | 2.27 | 0.72 | 900 | 2.91 | 2.09 | 0.72 | 934 |
| 23 | 20 | 3.61 | 2.16 | 0.60 | 882 | 3.36 | 2.02 | 0.60 | 926 | 3.12 | 1.87 | 0.60 | 977 |
| 23 | 22 | 3.82 | 1.83 | 0.48 | 917 | 3.57 | 1.71 | 0.48 | 969 | 3.33 | 1.60 | 0.48 | 1003 |
| 24 | 18 | 3.43 | 2.61 | 0.76 | 848 | 3.15 | 2.39 | 0.76 | 900 | 2.91 | 2.21 | 0.76 | 934 |
| 24 | 20 | 3.61 | 2.31 | 0.64 | 882 | 3.36 | 2.15 | 0.64 | 926 | 3.12 | 1.99 | 0.64 | 977 |
| 24 | 22 | 3.82 | 1.98 | 0.52 | 917 | 3.57 | 1.86 | 0.52 | 969 | 3.33 | 1.73 | 0.52 | 1003 |
| 24 | 24 | 4.03 | 1.61 | 0.40 | 952 | 3.78 | 1.51 | 0.40 | 995 | 3.57 | 1.43 | 0.40 | 1038 |
| 25 | 18 | 3.43 | 2.74 | 0.80 | 848 | 3.15 | 2.52 | 0.80 | 900 | 2.91 | 2.32 | 0.8 | 934 |
| 25 | 20 | 3.61 | 2.45 | 0.68 | 882 | 3.36 | 2.28 | 0.68 | 926 | 3.12 | 2.12 | 0.68 | 977 |
| 25 | 22 | 3.82 | 2.14 | 0.56 | 917 | 3.57 | 2.00 | 0.56 | 969 | 3.33 | 1.86 | 0.56 | 1003 |
| 25 | 24 | 4.03 | 1.77 | 0.44 | 952 | 3.78 | 1.66 | 0.44 | 995 | 3.57 | 1.57 | 0.44 | 1038 |
| 26 | 18 | 3.43 | 2.88 | 0.84 | 848 | 3.15 | 2.65 | 0.84 | 900 | 2.91 | 2.44 | 0.84 | 934 |
| 26 | 20 | 3.61 | 2.60 | 0.72 | 882 | 3.36 | 2.42 | 0.72 | 926 | 3.12 | 2.24 | 0.72 | 977 |
| 26 | 22 | 3.82 | 2.29 | 0.60 | 917 | 3.57 | 2.14 | 0.60 | 969 | 3.33 | 2.00 | 0.60 | 1003 |
| 26 | 24 | 4.03 | 1.93 | 0.48 | 952 | 3.78 | 1.81 | 0.48 | 995 | 3.57 | 1.71 | 0.48 | 1038 |
| 26 | 26 | 4.24 | 1.52 | 0.36 | 986 | 3.99 | 1.44 | 0.36 | 1029 | 3.75 | 1.35 | 0.36 | 1073 |
| 27 | 18 | 3.43 | 3.02 | 0.88 | 848 | 3.15 | 2.77 | 0.88 | 900 | 2.91 | 2.56 | 0.88 | 934 |
| 27 | 20 | 3.61 | 2.74 | 0.76 | 882 | 3.36 | 2.55 | 0.76 | 926 | 3.12 | 2.37 | 0.76 | 977 |
| 27 | 22 | 3.82 | 2.44 | 0.64 | 917 | 3.57 | 2.28 | 0.64 | 969 | 3.33 | 2.13 | 0.64 | 1003 |
| 27 | 24 | 4.03 | 2.09 | 0.52 | 952 | 3.78 | 1.97 | 0.52 | 995 | 3.57 | 1.86 | 0.52 | 1038 |
| 27 | 26 | 4.24 | 1.69 | 0.40 | 986 | 3.99 | 1.60 | 0.40 | 1029 | 3.75 | 1.50 | 0.40 | 1073 |
| 28 | 18 | 3.43 | 3.16 | 0.92 | 848 | 3.15 | 2.90 | 0.92 | 900 | 2.91 | 2.67 | 0.92 | 934 |
| 28 | 20 | 3.61 | 2.88 | 0.80 | 882 | 3.36 | 2.69 | 0.80 | 926 | 3.12 | 2.49 | 0.80 | 977 |
| 28 | 22 | 3.82 | 2.59 | 0.68 | 917 | 3.57 | 2.43 | 0.68 | 969 | 3.33 | 2.26 | 0.68 | 1003 |
| 28 | 24 | 4.03 | 2.25 | 0.56 | 952 | 3.78 | 2.12 | 0.56 | 995 | 3.57 | 2.00 | 0.56 | 1038 |
| 28 | 26 | 4.24 | 1.86 | 0.44 | 986 | 3.99 | 1.76 | 0.44 | 1029 | 3.75 | 1.65 | 0.44 | 1073 |
| 29 | 18 | 3.43 | 3.29 | 0.96 | 848 | 3.15 | 3.02 | 0.96 | 900 | 2.91 | 2.79 | 0.96 | 934 |
| 29 | 20 | 3.61 | 3.03 | 0.84 | 882 | 3.36 | 2.82 | 0.84 | 926 | 3.12 | 2.62 | 0.84 | 977 |
| 29 | 22 | 3.82 | 2.75 | 0.72 | 917 | 3.57 | 2.57 | 0.72 | 969 | 3.33 | 2.39 | 0.72 | 1003 |
| 29 | 24 | 4.03 | 2.42 | 0.60 | 952 | 3.78 | 2.27 | 0.60 | 995 | 3.57 | 2.14 | 0.60 | 1038 |
| 29 | 26 | 4.24 | 2.03 | 0.48 | 986 | 3.99 | 1.92 | 0.48 | 1029 | 3.75 | 1.80 | 0.48 | 1073 |
| 30 | 18 | 3.43 | 3.43 | 1.00 | 848 | 3.15 | 3.15 | 1.00 | 900 | 2.91 | 2.91 | 1.00 | 934 |
| 30 | 20 | 3.61 | 3.17 | 0.88 | 882 | 3.36 | 2.96 | 0.88 | 926 | 3.12 | 2.74 | 0.88 | 977 |
| 30 | 22 | 3.82 | 2.90 | 0.76 | 917 | 3.57 | 2.71 | 0.76 | 969 | 3.33 | 2.53 | 0.76 | 1003 |
| 30 | 24 | 4.03 | 2.58 | 0.64 | 952 | 3.78 | 2.42 | 0.64 | 995 | 3.57 | 2.28 | 0.64 | 1038 |
| 30 | 26 | 4.24 | 2.20 | 0.52 | 986 | 3.99 | 2.07 | 0.52 | 1029 | 3.75 | 1.95 | 0.52 | 1073 |
| 31 | 18 | 3.43 | 3.43 | 1.00 | 848 | 3.15 | 3.15 | 1.00 | 900 | 2.91 | 2.91 | 1.00 | 934 |
| 31 | 20 | 3.61 | 3.32 | 0.92 | 882 | 3.36 | 3.09 | 0.92 | 926 | 3.12 | 2.87 | 0.92 | 977 |
| 31 | 22 | 3.82 | 3.05 | 0.80 | 917 | 3.57 | 2.86 | 0.80 | 969 | 3.33 | 2.66 | 0.80 | 1003 |
| 31 | 24 | 4.03 | 2.74 | 0.68 | 952 | 3.78 | 2.57 | 0.68 | 995 | 3.57 | 2.43 | 0.68 | 1038 |
| 31 | 26 | 4.24 | 2.37 | 0.56 | 986 | 3.99 | 2.23 | 0.56 | 1029 | 3.75 | 2.10 | 0.56 | 1073 |
| 32 | 18 | 3.43 | 3.43 | 1.00 | 848 | 3.15 | 3.15 | 1.00 | 900 | 2.91 | 2.91 | 1.00 | 934 |
| 32 | 20 | 3.61 | 3.46 | 0.96 | 882 | 3.36 | 3.23 | 0.96 | 926 | 3.12 | 2.99 | 0.96 | 977 |
| 32 | 22 | 3.82 | 3.20 | 0.84 | 917 | 3.57 | 3.00 | 0.84 | 969 | 3.33 | 2.79 | 0.84 | 1003 |
| 32 | 24 | 4.03 | 2.90 | 0.72 | 952 | 3.78 | 2.72 | 0.72 | 995 | 3.57 | 2.57 | 0.72 | 1038 |
| 32 | 26 | 4.24 | 2.54 | 0.60 | 986 | 3.99 | 2.39 | 0.60 | 1029 | 3.75 | 2.25 | 0.60 | 1073 |

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-GE42VA MUZ-GE42VAH

CAPACITY: 4.2 kW

SHF: 0.77

INPUT: 1215 W

| INDOOR DB (°C) | INDOOR WB (°C) | OUTDOOR DB (°C) | | | | | | | | | | | | | | | |
|----------------|----------------|-----------------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|-------|
| | | 21 | | | | 25 | | | | 27 | | | | 30 | | | |
| | | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT |
| 21 | 18 | 4.94 | 2.91 | 0.59 | 972 | 4.73 | 2.79 | 0.59 | 1021 | 4.54 | 2.68 | 0.59 | 1069 | 4.37 | 2.58 | 0.59 | 1118 |
| 21 | 20 | 5.15 | 2.42 | 0.47 | 1021 | 4.94 | 2.32 | 0.47 | 1081 | 4.79 | 2.25 | 0.47 | 1106 | 4.62 | 2.17 | 0.47 | 1154 |
| 22 | 18 | 4.94 | 3.11 | 0.63 | 972 | 4.73 | 2.98 | 0.63 | 1021 | 4.54 | 2.86 | 0.63 | 1069 | 4.37 | 2.75 | 0.63 | 1118 |
| 22 | 20 | 5.15 | 2.62 | 0.51 | 1021 | 4.94 | 2.52 | 0.51 | 1081 | 4.79 | 2.44 | 0.51 | 1106 | 4.62 | 2.36 | 0.51 | 1154 |
| 22 | 22 | 5.36 | 2.09 | 0.39 | 1057 | 5.17 | 2.01 | 0.39 | 1124 | 5.04 | 1.97 | 0.39 | 1154 | 4.83 | 1.88 | 0.39 | 1203 |
| 23 | 18 | 4.94 | 3.31 | 0.67 | 972 | 4.73 | 3.17 | 0.67 | 1021 | 4.54 | 3.04 | 0.67 | 1069 | 4.37 | 2.93 | 0.67 | 1118 |
| 23 | 20 | 5.15 | 2.83 | 0.55 | 1021 | 4.94 | 2.71 | 0.55 | 1081 | 4.79 | 2.63 | 0.55 | 1106 | 4.62 | 2.54 | 0.55 | 1154 |
| 23 | 22 | 5.36 | 2.30 | 0.43 | 1057 | 5.17 | 2.22 | 0.43 | 1124 | 5.04 | 2.17 | 0.43 | 1154 | 4.83 | 2.08 | 0.43 | 1203 |
| 24 | 18 | 4.94 | 3.50 | 0.71 | 972 | 4.73 | 3.35 | 0.71 | 1021 | 4.54 | 3.22 | 0.71 | 1069 | 4.37 | 3.10 | 0.71 | 1118 |
| 24 | 20 | 5.15 | 3.04 | 0.59 | 1021 | 4.94 | 2.91 | 0.59 | 1081 | 4.79 | 2.82 | 0.59 | 1106 | 4.62 | 2.73 | 0.59 | 1154 |
| 24 | 22 | 5.36 | 2.52 | 0.47 | 1057 | 5.17 | 2.43 | 0.47 | 1124 | 5.04 | 2.37 | 0.47 | 1154 | 4.83 | 2.27 | 0.47 | 1203 |
| 24 | 24 | 5.63 | 1.97 | 0.35 | 1106 | 5.42 | 1.90 | 0.35 | 1166 | 5.29 | 1.85 | 0.35 | 1203 | 5.12 | 1.79 | 0.35 | 1264 |
| 25 | 18 | 4.94 | 3.70 | 0.75 | 972 | 4.73 | 3.54 | 0.75 | 1021 | 4.54 | 3.40 | 0.75 | 1069 | 4.37 | 3.28 | 0.75 | 1118 |
| 25 | 20 | 5.15 | 3.24 | 0.63 | 1021 | 4.94 | 3.11 | 0.63 | 1081 | 4.79 | 3.02 | 0.63 | 1106 | 4.62 | 2.91 | 0.63 | 1154 |
| 25 | 22 | 5.36 | 2.73 | 0.51 | 1057 | 5.17 | 2.63 | 0.51 | 1124 | 5.04 | 2.57 | 0.51 | 1154 | 4.83 | 2.46 | 0.51 | 1203 |
| 25 | 24 | 5.63 | 2.19 | 0.39 | 1106 | 5.42 | 2.11 | 0.39 | 1166 | 5.29 | 2.06 | 0.39 | 1203 | 5.12 | 2.00 | 0.39 | 1264 |
| 26 | 18 | 4.94 | 3.90 | 0.79 | 972 | 4.73 | 3.73 | 0.79 | 1021 | 4.54 | 3.58 | 0.79 | 1069 | 4.37 | 3.45 | 0.79 | 1118 |
| 26 | 20 | 5.15 | 3.45 | 0.67 | 1021 | 4.94 | 3.31 | 0.67 | 1081 | 4.79 | 3.21 | 0.67 | 1106 | 4.62 | 3.10 | 0.67 | 1154 |
| 26 | 22 | 5.36 | 2.95 | 0.55 | 1057 | 5.17 | 2.84 | 0.55 | 1124 | 5.04 | 2.77 | 0.55 | 1154 | 4.83 | 2.66 | 0.55 | 1203 |
| 26 | 24 | 5.63 | 2.42 | 0.43 | 1106 | 5.42 | 2.33 | 0.43 | 1166 | 5.29 | 2.28 | 0.43 | 1203 | 5.12 | 2.20 | 0.43 | 1264 |
| 26 | 26 | 5.80 | 1.80 | 0.31 | 1166 | 5.63 | 1.74 | 0.31 | 1227 | 5.54 | 1.72 | 0.31 | 1264 | 5.38 | 1.67 | 0.31 | 1300 |
| 27 | 18 | 4.94 | 4.10 | 0.83 | 972 | 4.73 | 3.92 | 0.83 | 1021 | 4.54 | 3.76 | 0.83 | 1069 | 4.37 | 3.63 | 0.83 | 1118 |
| 27 | 20 | 5.15 | 3.65 | 0.71 | 1021 | 4.94 | 3.50 | 0.71 | 1081 | 4.79 | 3.40 | 0.71 | 1106 | 4.62 | 3.28 | 0.71 | 1154 |
| 27 | 22 | 5.36 | 3.16 | 0.59 | 1057 | 5.17 | 3.05 | 0.59 | 1124 | 5.04 | 2.97 | 0.59 | 1154 | 4.83 | 2.85 | 0.59 | 1203 |
| 27 | 24 | 5.63 | 2.65 | 0.47 | 1106 | 5.42 | 2.55 | 0.47 | 1166 | 5.29 | 2.49 | 0.47 | 1203 | 5.12 | 2.41 | 0.47 | 1264 |
| 27 | 26 | 5.80 | 2.03 | 0.35 | 1166 | 5.63 | 1.97 | 0.35 | 1227 | 5.54 | 1.94 | 0.35 | 1264 | 5.38 | 1.88 | 0.35 | 1300 |
| 28 | 18 | 4.94 | 4.29 | 0.87 | 972 | 4.73 | 4.11 | 0.87 | 1021 | 4.54 | 3.95 | 0.87 | 1069 | 4.37 | 3.80 | 0.87 | 1118 |
| 28 | 20 | 5.15 | 3.86 | 0.75 | 1021 | 4.94 | 3.70 | 0.75 | 1081 | 4.79 | 3.59 | 0.75 | 1106 | 4.62 | 3.47 | 0.75 | 1154 |
| 28 | 22 | 5.36 | 3.37 | 0.63 | 1057 | 5.17 | 3.25 | 0.63 | 1124 | 5.04 | 3.18 | 0.63 | 1154 | 4.83 | 3.04 | 0.63 | 1203 |
| 28 | 24 | 5.63 | 2.87 | 0.51 | 1106 | 5.42 | 2.76 | 0.51 | 1166 | 5.29 | 2.70 | 0.51 | 1203 | 5.12 | 2.61 | 0.51 | 1264 |
| 28 | 26 | 5.80 | 2.26 | 0.39 | 1166 | 5.63 | 2.19 | 0.39 | 1227 | 5.54 | 2.16 | 0.39 | 1264 | 5.38 | 2.10 | 0.39 | 1300 |
| 29 | 18 | 4.94 | 4.49 | 0.91 | 972 | 4.73 | 4.30 | 0.91 | 1021 | 4.54 | 4.13 | 0.91 | 1069 | 4.37 | 3.97 | 0.91 | 1118 |
| 29 | 20 | 5.15 | 4.06 | 0.79 | 1021 | 4.94 | 3.90 | 0.79 | 1081 | 4.79 | 3.78 | 0.79 | 1106 | 4.62 | 3.65 | 0.79 | 1154 |
| 29 | 22 | 5.36 | 3.59 | 0.67 | 1057 | 5.17 | 3.46 | 0.67 | 1124 | 5.04 | 3.38 | 0.67 | 1154 | 4.83 | 3.24 | 0.67 | 1203 |
| 29 | 24 | 5.63 | 3.10 | 0.55 | 1106 | 5.42 | 2.98 | 0.55 | 1166 | 5.29 | 2.91 | 0.55 | 1203 | 5.12 | 2.82 | 0.55 | 1264 |
| 29 | 26 | 5.80 | 2.49 | 0.43 | 1166 | 5.63 | 2.42 | 0.43 | 1227 | 5.54 | 2.38 | 0.43 | 1264 | 5.38 | 2.31 | 0.43 | 1300 |
| 30 | 18 | 4.94 | 4.69 | 0.95 | 972 | 4.73 | 4.49 | 0.95 | 1021 | 4.54 | 4.31 | 0.95 | 1069 | 4.37 | 4.15 | 0.95 | 1118 |
| 30 | 20 | 5.15 | 4.27 | 0.83 | 1021 | 4.94 | 4.10 | 0.83 | 1081 | 4.79 | 3.97 | 0.83 | 1106 | 4.62 | 3.83 | 0.83 | 1154 |
| 30 | 22 | 5.36 | 3.80 | 0.71 | 1057 | 5.17 | 3.67 | 0.71 | 1124 | 5.04 | 3.58 | 0.71 | 1154 | 4.83 | 3.43 | 0.71 | 1203 |
| 30 | 24 | 5.63 | 3.32 | 0.59 | 1106 | 5.42 | 3.20 | 0.59 | 1166 | 5.29 | 3.12 | 0.59 | 1203 | 5.12 | 3.02 | 0.59 | 1264 |
| 30 | 26 | 5.80 | 2.72 | 0.47 | 1166 | 5.63 | 2.65 | 0.47 | 1227 | 5.54 | 2.61 | 0.47 | 1264 | 5.38 | 2.53 | 0.47 | 1300 |
| 31 | 18 | 4.94 | 4.89 | 0.99 | 972 | 4.73 | 4.68 | 0.99 | 1021 | 4.54 | 4.49 | 0.99 | 1069 | 4.37 | 4.32 | 0.99 | 1118 |
| 31 | 20 | 5.15 | 4.48 | 0.87 | 1021 | 4.94 | 4.29 | 0.87 | 1081 | 4.79 | 4.17 | 0.87 | 1106 | 4.62 | 4.02 | 0.87 | 1154 |
| 31 | 22 | 5.36 | 4.02 | 0.75 | 1057 | 5.17 | 3.87 | 0.75 | 1124 | 5.04 | 3.78 | 0.75 | 1154 | 4.83 | 3.62 | 0.75 | 1203 |
| 31 | 24 | 5.63 | 3.55 | 0.63 | 1106 | 5.42 | 3.41 | 0.63 | 1166 | 5.29 | 3.33 | 0.63 | 1203 | 5.12 | 3.23 | 0.63 | 1264 |
| 31 | 26 | 5.80 | 2.96 | 0.51 | 1166 | 5.63 | 2.87 | 0.51 | 1227 | 5.54 | 2.83 | 0.51 | 1264 | 5.38 | 2.74 | 0.51 | 1300 |
| 32 | 18 | 4.94 | 4.94 | 1.00 | 972 | 4.73 | 4.73 | 1.00 | 1021 | 4.54 | 4.54 | 1.00 | 1069 | 4.37 | 4.37 | 1.00 | 1118 |
| 32 | 20 | 5.15 | 4.68 | 0.91 | 1021 | 4.94 | 4.49 | 0.91 | 1081 | 4.79 | 4.36 | 0.91 | 1106 | 4.62 | 4.20 | 0.91 | 1154 |
| 32 | 22 | 5.36 | 4.23 | 0.79 | 1057 | 5.17 | 4.08 | 0.79 | 1124 | 5.04 | 3.98 | 0.79 | 1154 | 4.83 | 3.82 | 0.79 | 1203 |
| 32 | 24 | 5.63 | 3.77 | 0.67 | 1106 | 5.42 | 3.63 | 0.67 | 1166 | 5.29 | 3.55 | 0.67 | 1203 | 5.12 | 3.43 | 0.67 | 1264 |
| 32 | 26 | 5.80 | 3.19 | 0.55 | 1166 | 5.63 | 3.10 | 0.55 | 1227 | 5.54 | 3.05 | 0.55 | 1264 | 5.38 | 2.96 | 0.55 | 1300 |

NOTE Q : Total capacity (kW)

SHF : Sensible heat factor

DB : Dry-bulb temperature

SHC : Sensible heat capacity (kW)

INPUT : Total power input (W)

WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-GE42VA MUZ-GE42VAH

CAPACITY: 4.2 kW

SHF: 0.77

INPUT: 1215 W

| INDOOR DB (°C) | INDOOR WB (°C) | OUTDOOR DB (°C) | | | | | | | | | | | |
|----------------|----------------|-----------------|------|------|-------|------|------|------|-------|------|------|------|-------|
| | | 35 | | | | 40 | | | | 46 | | | |
| | | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT |
| 21 | 18 | 4.12 | 2.43 | 0.59 | 1191 | 3.78 | 2.23 | 0.59 | 1264 | 3.49 | 2.06 | 0.59 | 1312 |
| 21 | 20 | 4.33 | 2.03 | 0.47 | 1239 | 4.03 | 1.90 | 0.47 | 1300 | 3.74 | 1.76 | 0.47 | 1373 |
| 22 | 18 | 4.12 | 2.59 | 0.63 | 1191 | 3.78 | 2.38 | 0.63 | 1264 | 3.49 | 2.20 | 0.63 | 1312 |
| 22 | 20 | 4.33 | 2.21 | 0.51 | 1239 | 4.03 | 2.06 | 0.51 | 1300 | 3.74 | 1.91 | 0.51 | 1373 |
| 22 | 22 | 4.58 | 1.79 | 0.39 | 1288 | 4.28 | 1.67 | 0.39 | 1361 | 3.99 | 1.56 | 0.39 | 1409 |
| 23 | 18 | 4.12 | 2.76 | 0.67 | 1191 | 3.78 | 2.53 | 0.67 | 1264 | 3.49 | 2.34 | 0.67 | 1312 |
| 23 | 20 | 4.33 | 2.38 | 0.55 | 1239 | 4.03 | 2.22 | 0.55 | 1300 | 3.74 | 2.06 | 0.55 | 1373 |
| 23 | 22 | 4.58 | 1.97 | 0.43 | 1288 | 4.28 | 1.84 | 0.43 | 1361 | 3.99 | 1.72 | 0.43 | 1409 |
| 24 | 18 | 4.12 | 2.92 | 0.71 | 1191 | 3.78 | 2.68 | 0.71 | 1264 | 3.49 | 2.48 | 0.71 | 1312 |
| 24 | 20 | 4.33 | 2.55 | 0.59 | 1239 | 4.03 | 2.38 | 0.59 | 1300 | 3.74 | 2.21 | 0.59 | 1373 |
| 24 | 22 | 4.58 | 2.15 | 0.47 | 1288 | 4.28 | 2.01 | 0.47 | 1361 | 3.99 | 1.88 | 0.47 | 1409 |
| 24 | 24 | 4.83 | 1.69 | 0.35 | 1337 | 4.54 | 1.59 | 0.35 | 1397 | 4.28 | 1.50 | 0.35 | 1458 |
| 25 | 18 | 4.12 | 3.09 | 0.75 | 1191 | 3.78 | 2.84 | 0.75 | 1264 | 3.49 | 2.61 | 0.75 | 1312 |
| 25 | 20 | 4.33 | 2.73 | 0.63 | 1239 | 4.03 | 2.54 | 0.63 | 1300 | 3.74 | 2.35 | 0.63 | 1373 |
| 25 | 22 | 4.58 | 2.33 | 0.51 | 1288 | 4.28 | 2.18 | 0.51 | 1361 | 3.99 | 2.03 | 0.51 | 1409 |
| 25 | 24 | 4.83 | 1.88 | 0.39 | 1337 | 4.54 | 1.77 | 0.39 | 1397 | 4.28 | 1.67 | 0.39 | 1458 |
| 26 | 18 | 4.12 | 3.25 | 0.79 | 1191 | 3.78 | 2.99 | 0.79 | 1264 | 3.49 | 2.75 | 0.79 | 1312 |
| 26 | 20 | 4.33 | 2.90 | 0.67 | 1239 | 4.03 | 2.70 | 0.67 | 1300 | 3.74 | 2.50 | 0.67 | 1373 |
| 26 | 22 | 4.58 | 2.52 | 0.55 | 1288 | 4.28 | 2.36 | 0.55 | 1361 | 3.99 | 2.19 | 0.55 | 1409 |
| 26 | 24 | 4.83 | 2.08 | 0.43 | 1337 | 4.54 | 1.95 | 0.43 | 1397 | 4.28 | 1.84 | 0.43 | 1458 |
| 26 | 26 | 5.08 | 1.58 | 0.31 | 1385 | 4.79 | 1.48 | 0.31 | 1446 | 4.49 | 1.39 | 0.31 | 1507 |
| 27 | 18 | 4.12 | 3.42 | 0.83 | 1191 | 3.78 | 3.14 | 0.83 | 1264 | 3.49 | 2.89 | 0.83 | 1312 |
| 27 | 20 | 4.33 | 3.07 | 0.71 | 1239 | 4.03 | 2.86 | 0.71 | 1300 | 3.74 | 2.65 | 0.71 | 1373 |
| 27 | 22 | 4.58 | 2.70 | 0.59 | 1288 | 4.28 | 2.53 | 0.59 | 1361 | 3.99 | 2.35 | 0.59 | 1409 |
| 27 | 24 | 4.83 | 2.27 | 0.47 | 1337 | 4.54 | 2.13 | 0.47 | 1397 | 4.28 | 2.01 | 0.47 | 1458 |
| 27 | 26 | 5.08 | 1.78 | 0.35 | 1385 | 4.79 | 1.68 | 0.35 | 1446 | 4.49 | 1.57 | 0.35 | 1507 |
| 28 | 18 | 4.12 | 3.58 | 0.87 | 1191 | 3.78 | 3.29 | 0.87 | 1264 | 3.49 | 3.03 | 0.87 | 1312 |
| 28 | 20 | 4.33 | 3.24 | 0.75 | 1239 | 4.03 | 3.02 | 0.75 | 1300 | 3.74 | 2.80 | 0.75 | 1373 |
| 28 | 22 | 4.58 | 2.88 | 0.63 | 1288 | 4.28 | 2.70 | 0.63 | 1361 | 3.99 | 2.51 | 0.63 | 1409 |
| 28 | 24 | 4.83 | 2.46 | 0.51 | 1337 | 4.54 | 2.31 | 0.51 | 1397 | 4.28 | 2.18 | 0.51 | 1458 |
| 28 | 26 | 5.08 | 1.98 | 0.39 | 1385 | 4.79 | 1.87 | 0.39 | 1446 | 4.49 | 1.75 | 0.39 | 1507 |
| 29 | 18 | 4.12 | 3.75 | 0.91 | 1191 | 3.78 | 3.44 | 0.91 | 1264 | 3.49 | 3.17 | 0.91 | 1312 |
| 29 | 20 | 4.33 | 3.42 | 0.79 | 1239 | 4.03 | 3.19 | 0.79 | 1300 | 3.74 | 2.95 | 0.79 | 1373 |
| 29 | 22 | 4.58 | 3.07 | 0.67 | 1288 | 4.28 | 2.87 | 0.67 | 1361 | 3.99 | 2.67 | 0.67 | 1409 |
| 29 | 24 | 4.83 | 2.66 | 0.55 | 1337 | 4.54 | 2.49 | 0.55 | 1397 | 4.28 | 2.36 | 0.55 | 1458 |
| 29 | 26 | 5.08 | 2.19 | 0.43 | 1385 | 4.79 | 2.06 | 0.43 | 1446 | 4.49 | 1.93 | 0.43 | 1507 |
| 30 | 18 | 4.12 | 3.91 | 0.95 | 1191 | 3.78 | 3.59 | 0.95 | 1264 | 3.49 | 3.31 | 0.95 | 1312 |
| 30 | 20 | 4.33 | 3.59 | 0.83 | 1239 | 4.03 | 3.35 | 0.83 | 1300 | 3.74 | 3.10 | 0.83 | 1373 |
| 30 | 22 | 4.58 | 3.25 | 0.71 | 1288 | 4.28 | 3.04 | 0.71 | 1361 | 3.99 | 2.83 | 0.71 | 1409 |
| 30 | 24 | 4.83 | 2.85 | 0.59 | 1337 | 4.54 | 2.68 | 0.59 | 1397 | 4.28 | 2.53 | 0.59 | 1458 |
| 30 | 26 | 5.08 | 2.39 | 0.47 | 1385 | 4.79 | 2.25 | 0.47 | 1446 | 4.49 | 2.11 | 0.47 | 1507 |
| 31 | 18 | 4.12 | 4.07 | 0.99 | 1191 | 3.78 | 3.74 | 0.99 | 1264 | 3.49 | 3.45 | 0.99 | 1312 |
| 31 | 20 | 4.33 | 3.76 | 0.87 | 1239 | 4.03 | 3.51 | 0.87 | 1300 | 3.74 | 3.25 | 0.87 | 1373 |
| 31 | 22 | 4.58 | 3.43 | 0.75 | 1288 | 4.28 | 3.21 | 0.75 | 1361 | 3.99 | 2.99 | 0.75 | 1409 |
| 31 | 24 | 4.83 | 3.04 | 0.63 | 1337 | 4.54 | 2.86 | 0.63 | 1397 | 4.28 | 2.70 | 0.63 | 1458 |
| 31 | 26 | 5.08 | 2.59 | 0.51 | 1385 | 4.79 | 2.44 | 0.51 | 1446 | 4.49 | 2.29 | 0.51 | 1507 |
| 32 | 18 | 4.12 | 4.12 | 1.00 | 1191 | 3.78 | 3.78 | 1.00 | 1264 | 3.49 | 3.49 | 1.00 | 1312 |
| 32 | 20 | 4.33 | 3.94 | 0.91 | 1239 | 4.03 | 3.67 | 0.91 | 1300 | 3.74 | 3.40 | 0.91 | 1373 |
| 32 | 22 | 4.58 | 3.62 | 0.79 | 1288 | 4.28 | 3.38 | 0.79 | 1361 | 3.99 | 3.15 | 0.79 | 1409 |
| 32 | 24 | 4.83 | 3.24 | 0.67 | 1337 | 4.54 | 3.04 | 0.67 | 1397 | 4.28 | 2.87 | 0.67 | 1458 |
| 32 | 26 | 5.08 | 2.80 | 0.55 | 1385 | 4.79 | 2.63 | 0.55 | 1446 | 4.49 | 2.47 | 0.55 | 1507 |

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
 SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

| | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-GE50VA MUZ-GE50VAH

CAPACITY: 5.0 kW

SHF: 0.76

INPUT: 1515 W

| INDOOR DB (°C) | INDOOR WB (°C) | OUTDOOR DB (°C) | | | | | | | | | | | | | | | |
|----------------|----------------|-----------------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|-------|
| | | 21 | | | | 25 | | | | 27 | | | | 30 | | | |
| | | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT |
| 21 | 18 | 5.88 | 3.41 | 0.58 | 1212 | 5.63 | 3.26 | 0.58 | 1273 | 5.40 | 3.13 | 0.58 | 1333 | 5.20 | 3.02 | 0.58 | 1394 |
| 21 | 20 | 6.13 | 2.82 | 0.46 | 1273 | 5.88 | 2.70 | 0.46 | 1348 | 5.70 | 2.62 | 0.46 | 1379 | 5.50 | 2.53 | 0.46 | 1439 |
| 22 | 18 | 5.88 | 3.64 | 0.62 | 1212 | 5.63 | 3.49 | 0.62 | 1273 | 5.40 | 3.35 | 0.62 | 1333 | 5.20 | 3.22 | 0.62 | 1394 |
| 22 | 20 | 6.13 | 3.06 | 0.50 | 1273 | 5.88 | 2.94 | 0.50 | 1348 | 5.70 | 2.85 | 0.50 | 1379 | 5.50 | 2.75 | 0.50 | 1439 |
| 22 | 22 | 6.38 | 2.42 | 0.38 | 1318 | 6.15 | 2.34 | 0.38 | 1401 | 6.00 | 2.28 | 0.38 | 1439 | 5.75 | 2.19 | 0.38 | 1500 |
| 23 | 18 | 5.88 | 3.88 | 0.66 | 1212 | 5.63 | 3.71 | 0.66 | 1273 | 5.40 | 3.56 | 0.66 | 1333 | 5.20 | 3.43 | 0.66 | 1394 |
| 23 | 20 | 6.13 | 3.31 | 0.54 | 1273 | 5.88 | 3.17 | 0.54 | 1348 | 5.70 | 3.08 | 0.54 | 1379 | 5.50 | 2.97 | 0.54 | 1439 |
| 23 | 22 | 6.38 | 2.68 | 0.42 | 1318 | 6.15 | 2.58 | 0.42 | 1401 | 6.00 | 2.52 | 0.42 | 1439 | 5.75 | 2.42 | 0.42 | 1500 |
| 24 | 18 | 5.88 | 4.11 | 0.70 | 1212 | 5.63 | 3.94 | 0.70 | 1273 | 5.40 | 3.78 | 0.70 | 1333 | 5.20 | 3.64 | 0.70 | 1394 |
| 24 | 20 | 6.13 | 3.55 | 0.58 | 1273 | 5.88 | 3.41 | 0.58 | 1348 | 5.70 | 3.31 | 0.58 | 1379 | 5.50 | 3.19 | 0.58 | 1439 |
| 24 | 22 | 6.38 | 2.93 | 0.46 | 1318 | 6.15 | 2.83 | 0.46 | 1401 | 6.00 | 2.76 | 0.46 | 1439 | 5.75 | 2.65 | 0.46 | 1500 |
| 24 | 24 | 6.70 | 2.28 | 0.34 | 1379 | 6.45 | 2.19 | 0.34 | 1454 | 6.30 | 2.14 | 0.34 | 1500 | 6.10 | 2.07 | 0.34 | 1576 |
| 25 | 18 | 5.88 | 4.35 | 0.74 | 1212 | 5.63 | 4.16 | 0.74 | 1273 | 5.40 | 4.00 | 0.74 | 1333 | 5.20 | 3.85 | 0.74 | 1394 |
| 25 | 20 | 6.13 | 3.80 | 0.62 | 1273 | 5.88 | 3.64 | 0.62 | 1348 | 5.70 | 3.53 | 0.62 | 1379 | 5.50 | 3.41 | 0.62 | 1439 |
| 25 | 22 | 6.38 | 3.19 | 0.50 | 1318 | 6.15 | 3.08 | 0.50 | 1401 | 6.00 | 3.00 | 0.50 | 1439 | 5.75 | 2.88 | 0.50 | 1500 |
| 25 | 24 | 6.70 | 2.55 | 0.38 | 1379 | 6.45 | 2.45 | 0.38 | 1454 | 6.30 | 2.39 | 0.38 | 1500 | 6.10 | 2.32 | 0.38 | 1576 |
| 26 | 18 | 5.88 | 4.58 | 0.78 | 1212 | 5.63 | 4.39 | 0.78 | 1273 | 5.40 | 4.21 | 0.78 | 1333 | 5.20 | 4.06 | 0.78 | 1394 |
| 26 | 20 | 6.13 | 4.04 | 0.66 | 1273 | 5.88 | 3.88 | 0.66 | 1348 | 5.70 | 3.76 | 0.66 | 1379 | 5.50 | 3.63 | 0.66 | 1439 |
| 26 | 22 | 6.38 | 3.44 | 0.54 | 1318 | 6.15 | 3.32 | 0.54 | 1401 | 6.00 | 3.24 | 0.54 | 1439 | 5.75 | 3.11 | 0.54 | 1500 |
| 26 | 24 | 6.70 | 2.81 | 0.42 | 1379 | 6.45 | 2.71 | 0.42 | 1454 | 6.30 | 2.65 | 0.42 | 1500 | 6.10 | 2.56 | 0.42 | 1576 |
| 26 | 26 | 6.90 | 2.07 | 0.30 | 1454 | 6.70 | 2.01 | 0.30 | 1530 | 6.60 | 1.98 | 0.30 | 1576 | 6.40 | 1.92 | 0.30 | 1621 |
| 27 | 18 | 5.88 | 4.82 | 0.82 | 1212 | 5.63 | 4.61 | 0.82 | 1273 | 5.40 | 4.43 | 0.82 | 1333 | 5.20 | 4.26 | 0.82 | 1394 |
| 27 | 20 | 6.13 | 4.29 | 0.70 | 1273 | 5.88 | 4.11 | 0.70 | 1348 | 5.70 | 3.99 | 0.70 | 1379 | 5.50 | 3.85 | 0.70 | 1439 |
| 27 | 22 | 6.38 | 3.70 | 0.58 | 1318 | 6.15 | 3.57 | 0.58 | 1401 | 6.00 | 3.48 | 0.58 | 1439 | 5.75 | 3.34 | 0.58 | 1500 |
| 27 | 24 | 6.70 | 3.08 | 0.46 | 1379 | 6.45 | 2.97 | 0.46 | 1454 | 6.30 | 2.90 | 0.46 | 1500 | 6.10 | 2.81 | 0.46 | 1576 |
| 27 | 26 | 6.90 | 2.35 | 0.34 | 1454 | 6.70 | 2.28 | 0.34 | 1530 | 6.60 | 2.24 | 0.34 | 1576 | 6.40 | 2.18 | 0.34 | 1621 |
| 28 | 18 | 5.88 | 5.05 | 0.86 | 1212 | 5.63 | 4.84 | 0.86 | 1273 | 5.40 | 4.64 | 0.86 | 1333 | 5.20 | 4.47 | 0.86 | 1394 |
| 28 | 20 | 6.13 | 4.53 | 0.74 | 1273 | 5.88 | 4.35 | 0.74 | 1348 | 5.70 | 4.22 | 0.74 | 1379 | 5.50 | 4.07 | 0.74 | 1439 |
| 28 | 22 | 6.38 | 3.95 | 0.62 | 1318 | 6.15 | 3.81 | 0.62 | 1401 | 6.00 | 3.72 | 0.62 | 1439 | 5.75 | 3.57 | 0.62 | 1500 |
| 28 | 24 | 6.70 | 3.35 | 0.50 | 1379 | 6.45 | 3.23 | 0.50 | 1454 | 6.30 | 3.15 | 0.50 | 1500 | 6.10 | 3.05 | 0.50 | 1576 |
| 28 | 26 | 6.90 | 2.62 | 0.38 | 1454 | 6.70 | 2.55 | 0.38 | 1530 | 6.60 | 2.51 | 0.38 | 1576 | 6.40 | 2.43 | 0.38 | 1621 |
| 29 | 18 | 5.88 | 5.29 | 0.90 | 1212 | 5.63 | 5.06 | 0.90 | 1273 | 5.40 | 4.86 | 0.90 | 1333 | 5.20 | 4.68 | 0.90 | 1394 |
| 29 | 20 | 6.13 | 4.78 | 0.78 | 1273 | 5.88 | 4.58 | 0.78 | 1348 | 5.70 | 4.45 | 0.78 | 1379 | 5.50 | 4.29 | 0.78 | 1439 |
| 29 | 22 | 6.38 | 4.21 | 0.66 | 1318 | 6.15 | 4.06 | 0.66 | 1401 | 6.00 | 3.96 | 0.66 | 1439 | 5.75 | 3.80 | 0.66 | 1500 |
| 29 | 24 | 6.70 | 3.62 | 0.54 | 1379 | 6.45 | 3.48 | 0.54 | 1454 | 6.30 | 3.40 | 0.54 | 1500 | 6.10 | 3.29 | 0.54 | 1576 |
| 29 | 26 | 6.90 | 2.90 | 0.42 | 1454 | 6.70 | 2.81 | 0.42 | 1530 | 6.60 | 2.77 | 0.42 | 1576 | 6.40 | 2.69 | 0.42 | 1621 |
| 30 | 18 | 5.88 | 5.52 | 0.94 | 1212 | 5.63 | 5.29 | 0.94 | 1273 | 5.40 | 5.08 | 0.94 | 1333 | 5.20 | 4.89 | 0.94 | 1394 |
| 30 | 20 | 6.13 | 5.02 | 0.82 | 1273 | 5.88 | 4.82 | 0.82 | 1348 | 5.70 | 4.67 | 0.82 | 1379 | 5.50 | 4.51 | 0.82 | 1439 |
| 30 | 22 | 6.38 | 4.46 | 0.70 | 1318 | 6.15 | 4.31 | 0.70 | 1401 | 6.00 | 4.20 | 0.70 | 1439 | 5.75 | 4.03 | 0.70 | 1500 |
| 30 | 24 | 6.70 | 3.89 | 0.58 | 1379 | 6.45 | 3.74 | 0.58 | 1454 | 6.30 | 3.65 | 0.58 | 1500 | 6.10 | 3.54 | 0.58 | 1576 |
| 30 | 26 | 6.90 | 3.17 | 0.46 | 1454 | 6.70 | 3.08 | 0.46 | 1530 | 6.60 | 3.04 | 0.46 | 1576 | 6.40 | 2.94 | 0.46 | 1621 |
| 31 | 18 | 5.88 | 5.76 | 0.98 | 1212 | 5.63 | 5.51 | 0.98 | 1273 | 5.40 | 5.29 | 0.98 | 1333 | 5.20 | 5.10 | 0.98 | 1394 |
| 31 | 20 | 6.13 | 5.27 | 0.86 | 1273 | 5.88 | 5.05 | 0.86 | 1348 | 5.70 | 4.90 | 0.86 | 1379 | 5.50 | 4.73 | 0.86 | 1439 |
| 31 | 22 | 6.38 | 4.72 | 0.74 | 1318 | 6.15 | 4.55 | 0.74 | 1401 | 6.00 | 4.44 | 0.74 | 1439 | 5.75 | 4.26 | 0.74 | 1500 |
| 31 | 24 | 6.70 | 4.15 | 0.62 | 1379 | 6.45 | 4.00 | 0.62 | 1454 | 6.30 | 3.91 | 0.62 | 1500 | 6.10 | 3.78 | 0.62 | 1576 |
| 31 | 26 | 6.90 | 3.45 | 0.50 | 1454 | 6.70 | 3.35 | 0.50 | 1530 | 6.60 | 3.30 | 0.50 | 1576 | 6.40 | 3.20 | 0.50 | 1621 |
| 32 | 18 | 5.88 | 5.88 | 1.00 | 1212 | 5.63 | 5.63 | 1.00 | 1273 | 5.40 | 5.40 | 1.00 | 1333 | 5.20 | 5.20 | 1.00 | 1394 |
| 32 | 20 | 6.13 | 5.51 | 0.90 | 1273 | 5.88 | 5.29 | 0.90 | 1348 | 5.70 | 5.13 | 0.90 | 1379 | 5.50 | 4.95 | 0.90 | 1439 |
| 32 | 22 | 6.38 | 4.97 | 0.78 | 1318 | 6.15 | 4.80 | 0.78 | 1401 | 6.00 | 4.68 | 0.78 | 1439 | 5.75 | 4.49 | 0.78 | 1500 |
| 32 | 24 | 6.70 | 4.42 | 0.66 | 1379 | 6.45 | 4.26 | 0.66 | 1454 | 6.30 | 4.16 | 0.66 | 1500 | 6.10 | 4.03 | 0.66 | 1576 |
| 32 | 26 | 6.90 | 3.73 | 0.54 | 1454 | 6.70 | 3.62 | 0.54 | 1530 | 6.60 | 3.56 | 0.54 | 1576 | 6.40 | 3.46 | 0.54 | 1621 |

NOTE Q : Total capacity (kW)

SHF : Sensible heat factor

DB : Dry-bulb temperature

SHC : Sensible heat capacity (kW)

INPUT : Total power input (W)

WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-GE50VA MUZ-GE50VAH

CAPACITY: 5.0 kW

SHF: 0.76

INPUT: 1515 W

| INDOOR DB (°C) | INDOOR WB (°C) | OUTDOOR DB (°C) | | | | | | | | | | | |
|----------------|----------------|-----------------|------|------|-------|------|------|------|-------|------|------|------|-------|
| | | 35 | | | | 40 | | | | 46 | | | |
| | | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT | Q | SHC | SHF | INPUT |
| 21 | 18 | 4.90 | 2.84 | 0.58 | 1485 | 4.50 | 2.61 | 0.58 | 1576 | 4.15 | 2.41 | 0.58 | 1636 |
| 21 | 20 | 5.15 | 2.37 | 0.46 | 1545 | 4.80 | 2.21 | 0.46 | 1621 | 4.45 | 2.05 | 0.46 | 1712 |
| 22 | 18 | 4.90 | 3.04 | 0.62 | 1485 | 4.50 | 2.79 | 0.62 | 1576 | 4.15 | 2.57 | 0.62 | 1636 |
| 22 | 20 | 5.15 | 2.58 | 0.50 | 1545 | 4.80 | 2.40 | 0.50 | 1621 | 4.45 | 2.23 | 0.50 | 1712 |
| 22 | 22 | 5.45 | 2.07 | 0.38 | 1606 | 5.10 | 1.94 | 0.38 | 1697 | 4.75 | 1.81 | 0.38 | 1757 |
| 23 | 18 | 4.90 | 3.23 | 0.66 | 1485 | 4.50 | 2.97 | 0.66 | 1576 | 4.15 | 2.74 | 0.66 | 1636 |
| 23 | 20 | 5.15 | 2.78 | 0.54 | 1545 | 4.80 | 2.59 | 0.54 | 1621 | 4.45 | 2.40 | 0.54 | 1712 |
| 23 | 22 | 5.45 | 2.29 | 0.42 | 1606 | 5.10 | 2.14 | 0.42 | 1697 | 4.75 | 2.00 | 0.42 | 1757 |
| 24 | 18 | 4.90 | 3.43 | 0.70 | 1485 | 4.50 | 3.15 | 0.70 | 1576 | 4.15 | 2.91 | 0.70 | 1636 |
| 24 | 20 | 5.15 | 2.99 | 0.58 | 1545 | 4.80 | 2.78 | 0.58 | 1621 | 4.45 | 2.58 | 0.58 | 1712 |
| 24 | 22 | 5.45 | 2.51 | 0.46 | 1606 | 5.10 | 2.35 | 0.46 | 1697 | 4.75 | 2.19 | 0.46 | 1757 |
| 24 | 24 | 5.75 | 1.96 | 0.34 | 1667 | 5.40 | 1.84 | 0.34 | 1742 | 5.10 | 1.73 | 0.34 | 1818 |
| 25 | 18 | 4.90 | 3.63 | 0.74 | 1485 | 4.50 | 3.33 | 0.74 | 1576 | 4.15 | 3.07 | 0.74 | 1636 |
| 25 | 20 | 5.15 | 3.19 | 0.62 | 1545 | 4.80 | 2.98 | 0.62 | 1621 | 4.45 | 2.76 | 0.62 | 1712 |
| 25 | 22 | 5.45 | 2.73 | 0.50 | 1606 | 5.10 | 2.55 | 0.50 | 1697 | 4.75 | 2.38 | 0.50 | 1757 |
| 25 | 24 | 5.75 | 2.19 | 0.38 | 1667 | 5.40 | 2.05 | 0.38 | 1742 | 5.10 | 1.94 | 0.38 | 1818 |
| 26 | 18 | 4.90 | 3.82 | 0.78 | 1485 | 4.50 | 3.51 | 0.78 | 1576 | 4.15 | 3.24 | 0.78 | 1636 |
| 26 | 20 | 5.15 | 3.40 | 0.66 | 1545 | 4.80 | 3.17 | 0.66 | 1621 | 4.45 | 2.94 | 0.66 | 1712 |
| 26 | 22 | 5.45 | 2.94 | 0.54 | 1606 | 5.10 | 2.75 | 0.54 | 1697 | 4.75 | 2.57 | 0.54 | 1757 |
| 26 | 24 | 5.75 | 2.42 | 0.42 | 1667 | 5.40 | 2.27 | 0.42 | 1742 | 5.10 | 2.14 | 0.42 | 1818 |
| 26 | 26 | 6.05 | 1.82 | 0.30 | 1727 | 5.70 | 1.71 | 0.30 | 1803 | 5.35 | 1.61 | 0.30 | 1879 |
| 27 | 18 | 4.90 | 4.02 | 0.82 | 1485 | 4.50 | 3.69 | 0.82 | 1576 | 4.15 | 3.40 | 0.82 | 1636 |
| 27 | 20 | 5.15 | 3.61 | 0.70 | 1545 | 4.80 | 3.36 | 0.70 | 1621 | 4.45 | 3.12 | 0.70 | 1712 |
| 27 | 22 | 5.45 | 3.16 | 0.58 | 1606 | 5.10 | 2.96 | 0.58 | 1697 | 4.75 | 2.76 | 0.58 | 1757 |
| 27 | 24 | 5.75 | 2.65 | 0.46 | 1667 | 5.40 | 2.48 | 0.46 | 1742 | 5.10 | 2.35 | 0.46 | 1818 |
| 27 | 26 | 6.05 | 2.06 | 0.34 | 1727 | 5.70 | 1.94 | 0.34 | 1803 | 5.35 | 1.82 | 0.34 | 1879 |
| 28 | 18 | 4.90 | 4.21 | 0.86 | 1485 | 4.50 | 3.87 | 0.86 | 1576 | 4.15 | 3.57 | 0.86 | 1636 |
| 28 | 20 | 5.15 | 3.81 | 0.74 | 1545 | 4.80 | 3.55 | 0.74 | 1621 | 4.45 | 3.29 | 0.74 | 1712 |
| 28 | 22 | 5.45 | 3.38 | 0.62 | 1606 | 5.10 | 3.16 | 0.62 | 1697 | 4.75 | 2.95 | 0.62 | 1757 |
| 28 | 24 | 5.75 | 2.88 | 0.50 | 1667 | 5.40 | 2.70 | 0.50 | 1742 | 5.10 | 2.55 | 0.50 | 1818 |
| 28 | 26 | 6.05 | 2.30 | 0.38 | 1727 | 5.70 | 2.17 | 0.38 | 1803 | 5.35 | 2.03 | 0.38 | 1879 |
| 29 | 18 | 4.90 | 4.41 | 0.90 | 1485 | 4.50 | 4.05 | 0.90 | 1576 | 4.15 | 3.74 | 0.90 | 1636 |
| 29 | 20 | 5.15 | 4.02 | 0.78 | 1545 | 4.80 | 3.74 | 0.78 | 1621 | 4.45 | 3.47 | 0.78 | 1712 |
| 29 | 22 | 5.45 | 3.60 | 0.66 | 1606 | 5.10 | 3.37 | 0.66 | 1697 | 4.75 | 3.14 | 0.66 | 1757 |
| 29 | 24 | 5.75 | 3.11 | 0.54 | 1667 | 5.40 | 2.92 | 0.54 | 1742 | 5.10 | 2.75 | 0.54 | 1818 |
| 29 | 26 | 6.05 | 2.54 | 0.42 | 1727 | 5.70 | 2.39 | 0.42 | 1803 | 5.35 | 2.25 | 0.42 | 1879 |
| 30 | 18 | 4.90 | 4.61 | 0.94 | 1485 | 4.50 | 4.23 | 0.94 | 1576 | 4.15 | 3.90 | 0.94 | 1636 |
| 30 | 20 | 5.15 | 4.22 | 0.82 | 1545 | 4.80 | 3.94 | 0.82 | 1621 | 4.45 | 3.65 | 0.82 | 1712 |
| 30 | 22 | 5.45 | 3.82 | 0.70 | 1606 | 5.10 | 3.57 | 0.70 | 1697 | 4.75 | 3.33 | 0.70 | 1757 |
| 30 | 24 | 5.75 | 3.34 | 0.58 | 1667 | 5.40 | 3.13 | 0.58 | 1742 | 5.10 | 2.96 | 0.58 | 1818 |
| 30 | 26 | 6.05 | 2.78 | 0.46 | 1727 | 5.70 | 2.62 | 0.46 | 1803 | 5.35 | 2.46 | 0.46 | 1879 |
| 31 | 18 | 4.90 | 4.80 | 0.98 | 1485 | 4.50 | 4.41 | 0.98 | 1576 | 4.15 | 4.07 | 0.98 | 1636 |
| 31 | 20 | 5.15 | 4.43 | 0.86 | 1545 | 4.80 | 4.13 | 0.86 | 1621 | 4.45 | 3.83 | 0.86 | 1712 |
| 31 | 22 | 5.45 | 4.03 | 0.74 | 1606 | 5.10 | 3.77 | 0.74 | 1697 | 4.75 | 3.52 | 0.74 | 1757 |
| 31 | 24 | 5.75 | 3.57 | 0.62 | 1667 | 5.40 | 3.35 | 0.62 | 1742 | 5.10 | 3.16 | 0.62 | 1818 |
| 31 | 26 | 6.05 | 3.03 | 0.50 | 1727 | 5.70 | 2.85 | 0.50 | 1803 | 5.35 | 2.68 | 0.50 | 1879 |
| 32 | 18 | 4.90 | 4.90 | 1.00 | 1485 | 4.50 | 4.50 | 1.00 | 1576 | 4.15 | 4.15 | 1.00 | 1636 |
| 32 | 20 | 5.15 | 4.64 | 0.90 | 1545 | 4.80 | 4.32 | 0.90 | 1621 | 4.45 | 4.01 | 0.90 | 1712 |
| 32 | 22 | 5.45 | 4.25 | 0.78 | 1606 | 5.10 | 3.98 | 0.78 | 1697 | 4.75 | 3.71 | 0.78 | 1757 |
| 32 | 24 | 5.75 | 3.80 | 0.66 | 1667 | 5.40 | 3.56 | 0.66 | 1742 | 5.10 | 3.37 | 0.66 | 1818 |
| 32 | 26 | 6.05 | 3.27 | 0.54 | 1727 | 5.70 | 3.08 | 0.54 | 1803 | 5.35 | 2.89 | 0.54 | 1879 |

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
 SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

| | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|

PERFORMANCE DATA HEAT operation at Rated frequency
MUZ-GE25VA MUZ-GE25VAH

CAPACITY: 3.2 kW INPUT: 700 W

| INDOOR DB (°C) | OUTDOOR WB (°C) | | | | | | | | | | | | | |
|-------------------|-----------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | -10 | | -5 | | 0 | | 5 | | 10 | | 15 | | 20 | |
| | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT |
| 15 | 2.02 | 455 | 2.43 | 546 | 2.85 | 616 | 3.26 | 665 | 3.68 | 707 | 4.06 | 728 | 4.48 | 742 |
| 21 | 1.92 | 490 | 2.30 | 581 | 2.72 | 644 | 3.10 | 693 | 3.52 | 728 | 3.90 | 749 | 4.30 | 777 |
| 26 | 1.73 | 525 | 2.14 | 616 | 2.53 | 679 | 2.94 | 728 | 3.36 | 763 | 3.74 | 784 | 4.16 | 805 |

MUZ-GE35VA MUZ-GE35VAH

CAPACITY: 4.0 kW INPUT: 955 W

| INDOOR DB (°C) | OUTDOOR WB (°C) | | | | | | | | | | | | | |
|-------------------|-----------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | -10 | | -5 | | 0 | | 5 | | 10 | | 15 | | 20 | |
| | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT |
| 15 | 2.52 | 621 | 3.04 | 745 | 3.56 | 840 | 4.08 | 907 | 4.60 | 965 | 5.08 | 993 | 5.60 | 1012 |
| 21 | 2.40 | 669 | 2.88 | 793 | 3.40 | 879 | 3.88 | 945 | 4.40 | 993 | 4.88 | 1022 | 5.38 | 1060 |
| 26 | 2.16 | 716 | 2.68 | 840 | 3.16 | 926 | 3.68 | 993 | 4.20 | 1041 | 4.68 | 1070 | 5.20 | 1098 |

MUZ-GE42VA MUZ-GE42VAH

CAPACITY: 5.4 kW INPUT: 1460 W

| INDOOR DB (°C) | OUTDOOR WB (°C) | | | | | | | | | | | | | |
|-------------------|-----------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | -10 | | -5 | | 0 | | 5 | | 10 | | 15 | | 20 | |
| | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT |
| 15 | 3.40 | 949 | 4.10 | 1139 | 4.81 | 1285 | 5.51 | 1387 | 6.21 | 1475 | 6.86 | 1518 | 7.56 | 1548 |
| 21 | 3.24 | 1022 | 3.89 | 1212 | 4.59 | 1343 | 5.24 | 1445 | 5.94 | 1518 | 6.59 | 1562 | 7.26 | 1621 |
| 26 | 2.92 | 1095 | 3.62 | 1285 | 4.27 | 1416 | 4.97 | 1518 | 5.67 | 1591 | 6.32 | 1635 | 7.02 | 1679 |

MUZ-GE50VAH MUZ-GE50VAH

CAPACITY: 5.8 kW INPUT: 1565 W

| INDOOR DB (°C) | OUTDOOR WB (°C) | | | | | | | | | | | | | |
|-------------------|-----------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | -10 | | -5 | | 0 | | 5 | | 10 | | 15 | | 20 | |
| | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT | Q | INPUT |
| 15 | 3.65 | 1017 | 4.41 | 1221 | 5.16 | 1377 | 5.92 | 1487 | 6.67 | 1581 | 7.37 | 1628 | 8.12 | 1659 |
| 21 | 3.48 | 1096 | 4.18 | 1299 | 4.93 | 1440 | 5.63 | 1549 | 6.38 | 1628 | 7.08 | 1675 | 7.80 | 1737 |
| 26 | 3.13 | 1174 | 3.89 | 1377 | 4.58 | 1518 | 5.34 | 1628 | 6.09 | 1706 | 6.79 | 1753 | 7.54 | 1800 |

NOTE: Q: Total capacity (kW) INPUT : Total power input (W) DB: Dry-bulb temperature WB: Wet-bulb temperature

MUZ-GE25VA MUZ-GE25VAH MUZ-GE35VA MUZ-GE35VAH

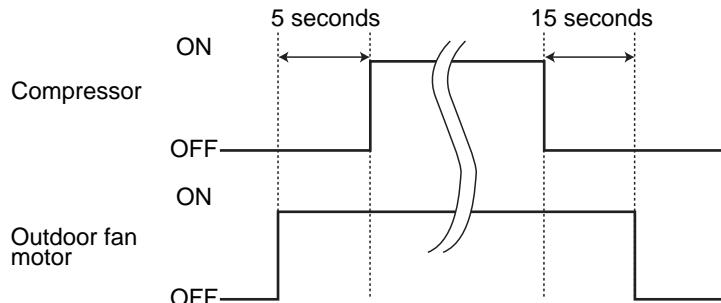
MUZ-GE42VA MUZ-GE42VAH MUZ-GE50VA MUZ-GE50VAH

9-1. OUTDOOR FAN MOTOR CONTROL

The fan motor turns ON/OFF, interlocking with the compressor.

[ON] The fan motor turns ON 5 seconds before the compressor starts up.

[OFF] The fan motor turns OFF 15 seconds after the compressor has stopped running.



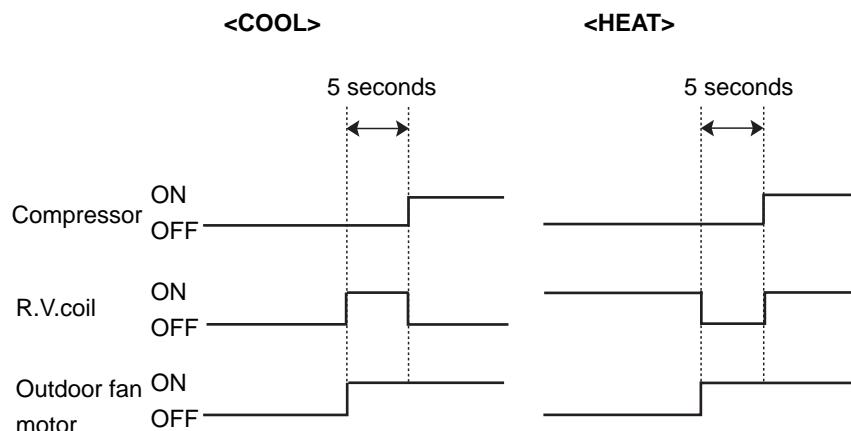
9-2. R.V. COIL CONTROL

Heating ON

Cooling OFF

Dry OFF

NOTE: The 4-way valve reverses for 5 seconds right before start-up of the compressor.



9-3. RELATION BETWEEN MAIN SENSOR AND ACTUATOR

| Sensor | Purpose | Actuator | | | | | |
|---|--|------------|-----|-------------------|----------|------------------|----------------|
| | | Compressor | LEV | Outdoor fan motor | R.V.coil | Indoor fan motor | Defrost heater |
| Discharge temperature thermistor | Protection | ○ | ○ | | | | |
| Indoor coil temperature thermistor | Cooling: Coil frost prevention | ○ | | | | | |
| | Heating: High pressure protection | ○ | ○ | | | | |
| Defrost thermistor | Heating: Defrosting | ○ | ○ | ○ | ○ | ○ | |
| Fin temperature thermistor | Protection | ○ | | ○ | | | |
| Ambient temperature thermistor | Cooling: Low ambient temperature operation | ○ | ○ | ○ | | | |
| | Heating: Defrosting (Heater) | | | | | | ○ |
| Outdoor heat exchanger temperature thermistor | Cooling: Low ambient temperature operation | ○ | ○ | ○ | | | |
| | Cooling: High pressure protection | ○ | ○ | ○ | | | |

MUZ-GE25VA MUZ-GE25VAH MUZ-GE35VA MUZ-GE35VAH MUZ-GE42VA MUZ-GE42VAH MUZ-GE50VA MUZ-GE50VAH

10-1. CHANGE IN DEFROST SETTING

Changing defrost finish temperature

<JS> To change the defrost finish temperature, cut/solder the JS wire of the outdoor inverter P.C. board. (Refer to 11-6-1.)

| Jumper wire | Defrost finish temperature (°C) | |
|-------------------------------|---------------------------------|------|
| | GE25/35/42 | GE50 |
| JS Soldered (Initial setting) | 5 | 9 |
| JS None (Cut) | 10 | 18 |

10-2. PRE-HEAT CONTROL SETTING

PRE-HEAT CONTROL

When moisture gets into the refrigerant cycle, it may interfere the start-up of the compressor at low outside temperature. The pre-heat control prevents this interference. The pre-heat control turns ON when outside temperature is 20°C or below. When pre-heat control is turned ON, compressor is energized. (About 50 W)

<JK> To activate the pre-heat control, cut the JK wire of the inverter P.C. board. (Refer to 11-6.1)

NOTE: When the inverter P.C. board is replaced, check the Jumper wires, and cut/solder them if necessary.

MUZ-GE25VA MUZ-GE25VAH MUZ-GE35VA MUZ-GE35VAH MUZ-GE42VA MUZ-GE42VAH MUZ-GE50VA MUZ-GE50VAH

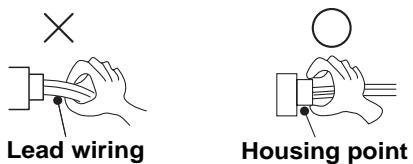
11-1. CAUTIONS ON TROUBLESHOOTING

1. Before troubleshooting, check the following

- 1) Check the power supply voltage.
- 2) Check the indoor/outdoor connecting wire for miswiring.

2. Take care of the following during servicing

- 1) Before servicing the air conditioner, be sure to turn OFF the main unit first with the remote controller, and then after confirming the horizontal vane is closed, turn OFF the breaker and/or disconnect the power plug.
- 2) Be sure to turn OFF the power supply before removing the front panel, the cabinet, the top panel, and the electronic control P.C. board.
- 3) When removing the electrical parts, be careful of the residual voltage of smoothing capacitor.
- 4) When removing the electronic control P.C. board, hold the edge of the board with care NOT to apply stress on the components.
- 5) When connecting or disconnecting the connectors, hold the housing of the connector. DO NOT pull the lead wires.



3. Troubleshooting procedure

- 1) First, check if the OPERATION INDICATOR lamp on the indoor unit is flashing on and off to indicate an abnormality. To make sure, check how many times the abnormality indication is flashing on and off before starting service work.
- 2) Before servicing, check that the connector and terminal are connected properly.
- 3) When the electronic control P.C. board seems to be defective, check the copper foil pattern for disconnection and the components for bursting and discoloration.
- 4) Refer to 11-2. and 11-3.

11-2. FAILURE MODE RECALL FUNCTION

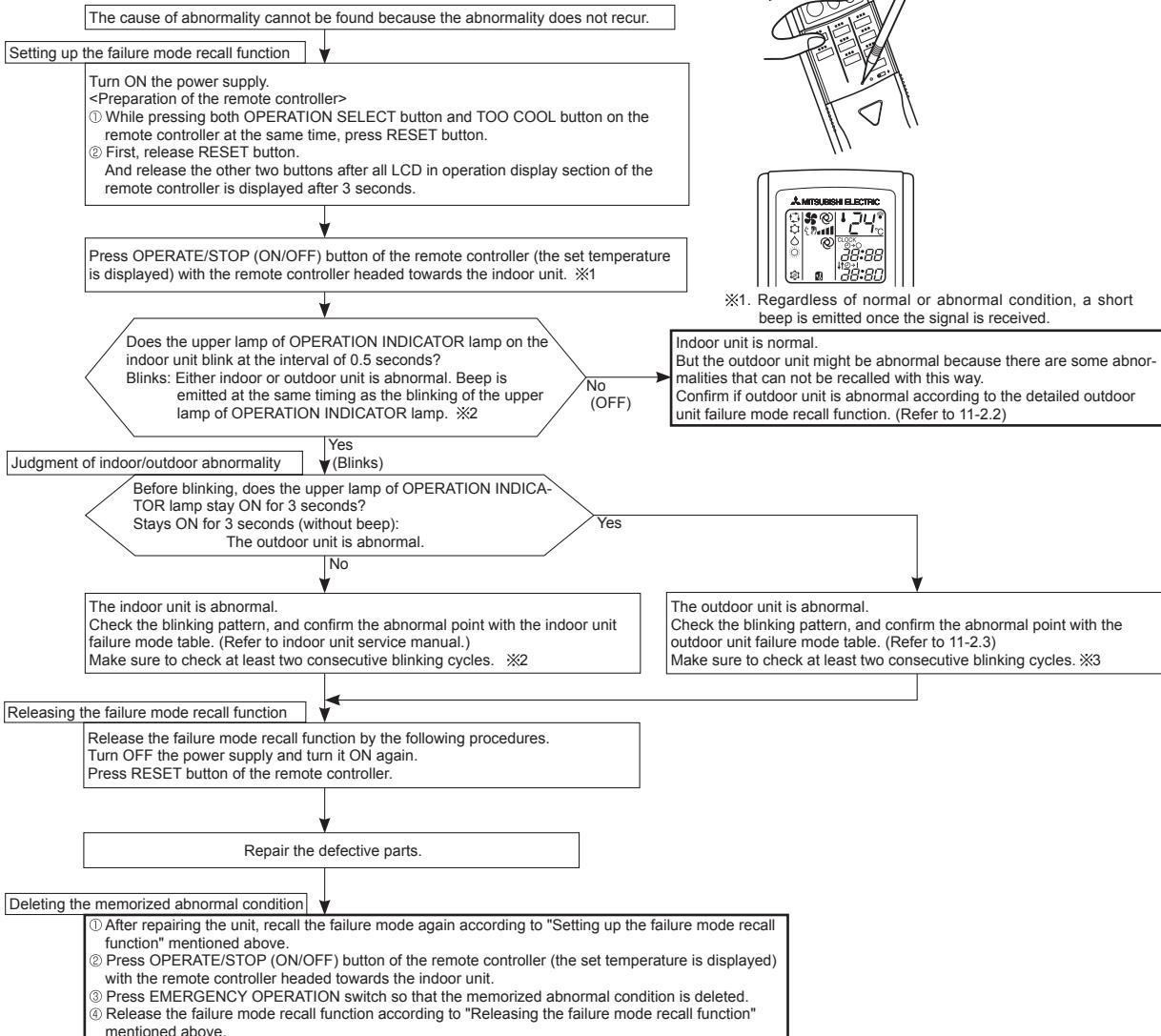
Outline of the function

This air conditioner can memorize the abnormal condition which has occurred once.

Even though LED indication listed on the troubleshooting check table (11-3.) disappears, the memorized failure details can be recalled.

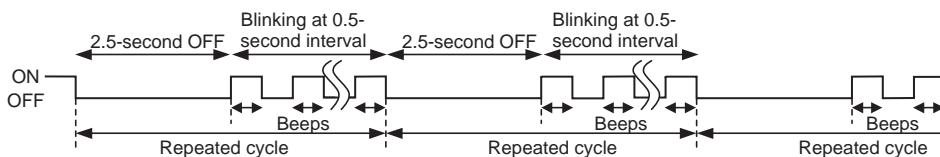
1. Flow chart of failure mode recall function for the indoor/outdoor unit

Operational procedure

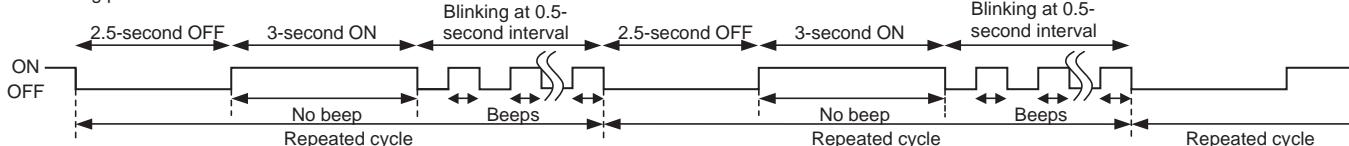


NOTE: 1. Make sure to release the failure mode recall function once it is set up, otherwise the unit cannot operate properly.
2. If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.

※2. Blinking pattern when the indoor unit is abnormal:

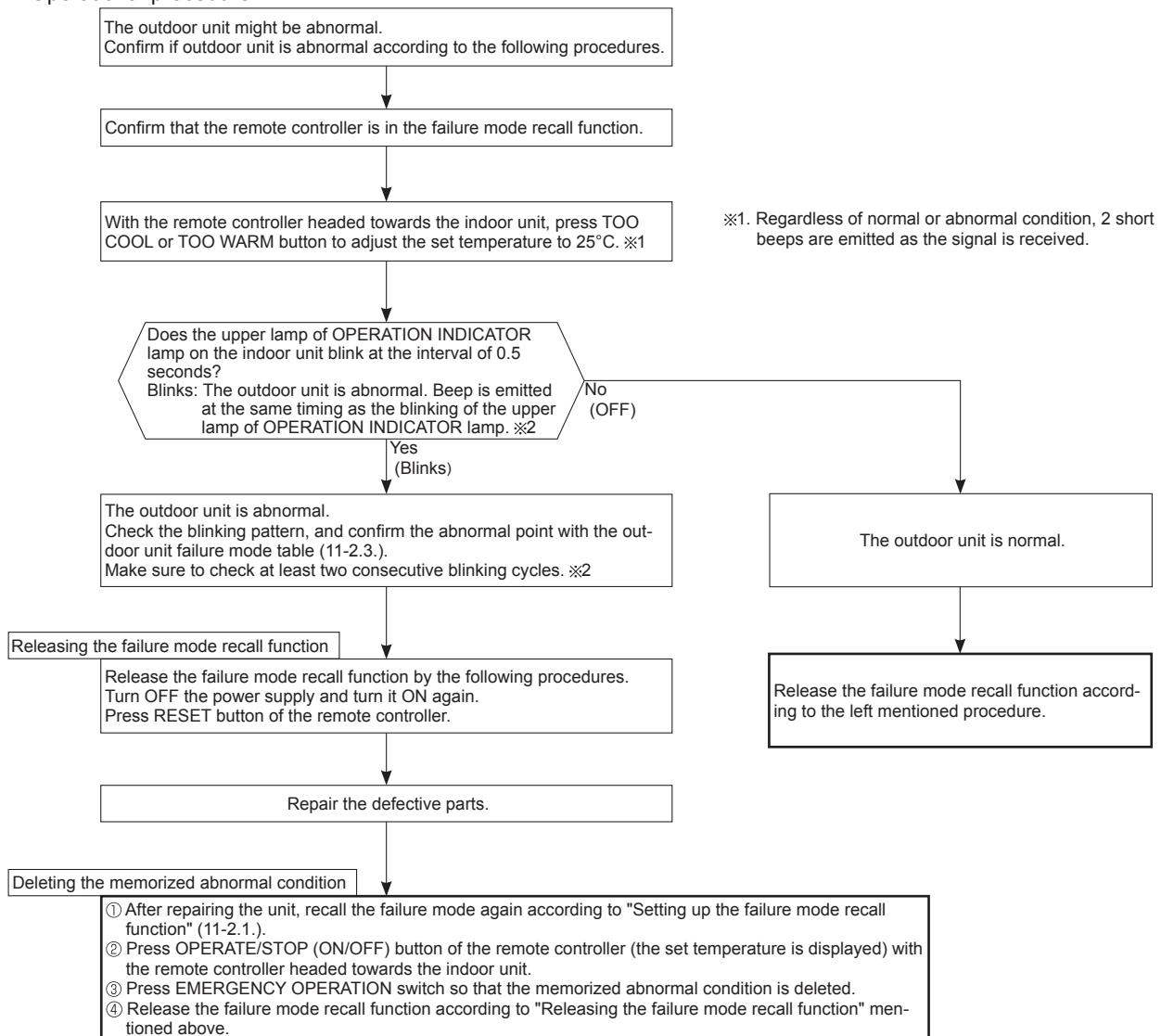


※3. Blinking pattern when the outdoor unit is abnormal:



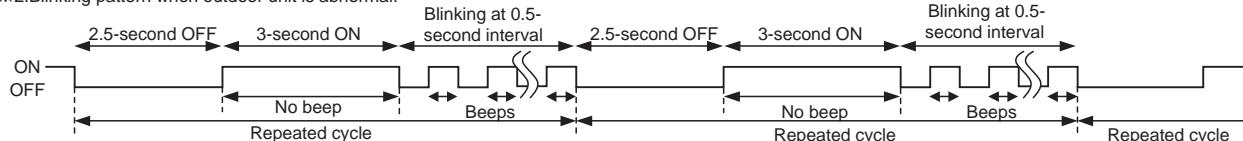
2. Flow chart of the detailed outdoor unit failure mode recall function

Operational procedure



NOTE: 1. Make sure to release the failure mode recall function once it is set up, otherwise the unit cannot operate properly.
2. If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.

※2.Blinking pattern when outdoor unit is abnormal:



3. Outdoor unit failure mode table

| The upper lamp of OPERATION INDICATOR lamp (Indoor unit) | Abnormal point (Failure mode / protection) | LED indication (Outdoor P.C. board) | Condition | Correspondence | Indoor/outdoor unit failure mode recall function | Outdoor unit failure mode recall function |
|--|---|-------------------------------------|---|---|--|---|
| OFF | None (Normal) | — | — | — | — | — |
| 2-time flash 2.5 seconds OFF | Outdoor power system | — | Overcurrent protection stop is continuously performed 3 times within 1 minute after the compressor gets started. | <ul style="list-style-type: none"> •Reconnect connectors. •Refer to 11-5. ④"How to check inverter/ compressor". •Check stop valve. | ○ | ○ |
| 3-time flash 2.5 seconds OFF | Discharge temperature thermistor | 1-time flash every 2.5 seconds | Thermistor shorts or opens during compressor running. | <ul style="list-style-type: none"> •Refer to 11-5. ④"Check of outdoor thermistors". •Defective outdoor thermistors can be identified by checking the blinking pattern of LED. | ○ | ○ |
| | Defrost thermistor | — | | | | |
| | Fin temperature thermistor | 3-time flash 2.5 seconds OFF | | | | |
| | P.C. board temperature thermistor | 4-time flash 2.5 seconds OFF | | | | |
| | Ambient temperature thermistor | 2-time flash 2.5 seconds OFF | | | | |
| 4-time flash 2.5 seconds OFF | Overcurrent | 11-time flash 2.5 seconds OFF | Large current flows into intelligent power module. | <ul style="list-style-type: none"> •Reconnect compressor connector. •Refer to 11-5. ④"How to check inverter/ compressor". •Check stop valve. | — | ○ |
| | Compressor synchronous abnormality (Compressor start-up failure protection) | 12-time flash 2.5 seconds OFF | Waveform of compressor current is distorted. | <ul style="list-style-type: none"> •Reconnect compressor connector. •Refer to 11-5. ④"How to check inverter/ compressor". | — | ○ |
| 5-time flash 2.5 seconds OFF | Discharge temperature | — | Temperature of discharge temperature thermistor exceeds 116°C, compressor stops. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later. | <ul style="list-style-type: none"> •Check refrigerant circuit and refrigerant amount. •Refer to 11-5. ④"Check of LEV". | — | ○ |
| 6-time flash 2.5 seconds OFF | High pressure | — | Temperature indoor coil thermistor exceeds 70°C in HEAT mode. Temperature defrost thermistor exceeds 70°C in COOL mode. | <ul style="list-style-type: none"> •Check refrigerant circuit and refrigerant amount. •Check stop valve. | — | ○ |
| 7-time flash 2.5 seconds OFF | Fin temperature/ P.C. board temperature | 7-time flash 2.5 seconds OFF | Temperature of fin temperature thermistor on the inverter P.C. board exceeds 75 ~ 80°C, or temperature of P.C. board temperature thermistor on the inverter P.C. board exceeds 70 ~ 75°C. | <ul style="list-style-type: none"> •Check around outdoor unit. •Check outdoor unit air passage. •Refer to 11-5. ④"Check of outdoor fan motor". | — | ○ |
| 8-time flash 2.5 seconds OFF | Outdoor fan motor | — | Outdoor fan has stopped 3 times in a row within 30 seconds after outdoor fan start-up. | <ul style="list-style-type: none"> •Refer to 11-5. ④"Check of outdoor fan motor". •Refer to 11-5. ④"Check of inverter P.C. board". | — | ○ |
| 9-time flash 2.5 seconds OFF | Nonvolatile memory data | 5-time flash 2.5 seconds OFF | Nonvolatile memory data cannot be read properly. | <ul style="list-style-type: none"> •Replace the inverter P.C. board. | ○ | ○ |
| 10-time flash 2.5 seconds OFF | Discharge temperature | — | Temperature of discharge temperature thermistor has been 50°C or less for 20 minutes. | <ul style="list-style-type: none"> •Refer to 11-5. ④"Check of LEV". •Check refrigerant circuit and refrigerant amount. | — | ○ |
| 11-time flash 2.5 seconds OFF | DC voltage | 8-time flash 2.5 seconds OFF | DC voltage of inverter cannot be detected normally. | <ul style="list-style-type: none"> •Refer to 11-5. ④"How to check inverter/ compressor". | — | ○ |
| | Each phase current of compressor | 9-time flash 2.5 seconds OFF | Each phase current of compressor cannot be detected normally. | | | |
| 12-time flash 2.5 seconds OFF | Overcurrent Compressor open-phase | 10-time flash 2.5 seconds OFF | Large current flows into intelligent power module (IPM). The open-phase operation of compressor is detected. The interphase short out occurs in the output of the intelligent power module (IPM). The compressor winding shorts out. | <ul style="list-style-type: none"> •Reconnect compressor connector. •Refer to 11-5. ④"How to check inverter/ compressor". | — | ○ |
| 14-time flash 2.5 seconds OFF | Stop valve (Closed valve) | 14-time flash 2.5 seconds OFF | Closed valve is detected by compressor current. | <ul style="list-style-type: none"> •Check stop valve | ○ | ○ |

NOTE: Blinking patterns of this mode differ from the ones of Troubleshooting check table (11-3.).

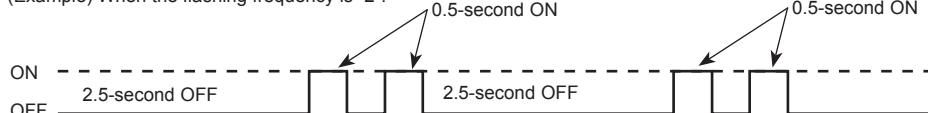
11-3. TROUBLESHOOTING CHECK TABLE

| No. | Symptom | LED indication | Abnormal point/Condition | Condition | Correspondence |
|-----|--|--------------------------------|--|--|--|
| 1 | 'Outdoor unit stops and restarts 3 minutes later' is repeated. | 1-time flash every 2.5 seconds | Outdoor power system | Overcurrent protection stop is continuously performed 3 times within 1 minute after the compressor gets started. | <ul style="list-style-type: none"> •Reconnect connector of compressor. •Refer to 11-5.Ⓐ "How to check inverter/compressor". •Check stop valve. |
| 2 | | | Outdoor thermistors | Discharge temperature thermistor, fin temperature thermistor, defrost thermistor, P.C. board temperature thermistor or ambient temperature thermistor shorts or opens during compressor running. | •Refer to 11-5.Ⓒ "Check of outdoor thermistors". |
| 3 | | | Outdoor control system | Nonvolatile memory data cannot be read properly. (The upper lamp of OPERATION INDICATOR lamp of the indoor unit lights up or flashes 7-time.) | •Replace inverter P.C. board. |
| 4 | | 6-time flash 2.5 seconds OFF | Serial signal | The communication fails between the indoor and outdoor unit for 3 minutes. | •Refer to 11-5.Ⓜ "How to check miswiring and serial signal error". |
| 5 | | 11-time flash 2.5 seconds OFF | Stop valve/ Closed valve | Closed valve is detected by compressor current. | •Check stop valve. |
| 6 | | 14-time flash 2.5 seconds OFF | Outdoor unit (Other abnormality) | Outdoor unit is defective. | •Refer to 11-2.2. "Flow chart of the detailed outdoor unit failure mode recall function". |
| 7 | | 2-time flash 2.5 seconds OFF | Overcurrent protection | Large current flows into intelligent power module. | <ul style="list-style-type: none"> •Reconnect connector of compressor. •Refer to 11-5.Ⓐ "How to check inverter/compressor". •Check stop valve. |
| 8 | | 3-time flash 2.5 seconds OFF | Discharge temperature overheat protection | Temperature of discharge temperature thermistor exceeds 116 °C, compressor stops. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later. | <ul style="list-style-type: none"> •Check refrigerant circuit and refrigerant amount. •Refer to 11-5.Ⓓ "Check of LEV". |
| 9 | | 4-time flash 2.5 seconds OFF | Fin temperature /P.C. board temperature thermistor overheat protection | Temperature of fin temperature thermistor on the heat sink exceeds 75 ~ 80°C or temperature of P.C. board temperature thermistor on the inverter P.C. board exceeds 70 ~ 75°C. | <ul style="list-style-type: none"> •Check around outdoor unit. •Check outdoor unit air passage. •Refer to 11-5.ⓘ "Check of outdoor fan motor". |
| 10 | | 5-time flash 2.5 seconds OFF | High pressure protection | Indoor coil thermistor exceeds 70°C in HEAT mode. Defrost thermistor exceeds 70°C in COOL mode. | <ul style="list-style-type: none"> •Check refrigerant circuit and refrigerant amount. •Check stop valve. |
| 11 | | 8-time flash 2.5 seconds OFF | Compressor synchronous abnormality | The waveform of compressor current is distorted. | <ul style="list-style-type: none"> •Reconnect connector of compressor. •Refer to 11-5.Ⓐ "How to check inverter/compressor". |
| 12 | | 10-time flash 2.5 seconds OFF | Outdoor fan motor | Outdoor fan has stopped 3 times in a row within 30 seconds after outdoor fan start-up. | <ul style="list-style-type: none"> •Refer to 11-5.ⓘ "Check of outdoor fan motor". •Refer to 11-5.Ⓛ "Check of inverter P.C. board". |
| 13 | | 12-time flash 2.5 seconds OFF | Each phase current of compressor | Each phase current of compressor cannot be detected normally. | •Refer to 11-5.Ⓐ "How to check inverter/compressor". |
| 14 | | 13-time flash 2.5 seconds OFF | DC voltage | DC voltage of inverter cannot be detected normally. | •Refer to 11-5.Ⓐ "How to check inverter/compressor". |
| 15 | Outdoor unit operates. | 1-time flash 2.5 seconds OFF | Frequency drop by current protection | Current from power outlet is nearing breaker capacity. | <p>The unit is normal, but check the following.</p> <ul style="list-style-type: none"> •Check if indoor filters are clogged. •Check if refrigerant is short. •Check if indoor/outdoor unit air circulation is short cycled. |
| 16 | | 3-time flash 2.5 seconds OFF | Frequency drop by high pressure protection | Temperature of indoor coil thermistor exceeds 55°C in HEAT mode, compressor frequency lowers. | |
| 17 | | | Frequency drop by defrosting in COOL mode | Indoor coil thermistor reads 8°C or less in COOL mode, compressor frequency lowers. | |
| 18 | | 4-time flash 2.5 seconds OFF | Frequency drop by discharge temperature protection | Temperature of discharge temperature thermistor exceeds 111 °C, compressor frequency lowers. | |
| 19 | Outdoor unit operates. | 7-time flash 2.5 seconds OFF | Low discharge temperature protection | Temperature of discharge temperature thermistor has been 50 °C or less for 20 minutes. | •Refer to 11-5.Ⓓ "Check of LEV". •Check refrigerant circuit and refrigerant amount. |
| 20 | | 8-time flash 2.5 seconds OFF | PAM protection PAM: Pulse Amplitude Modulation | The overcurrent flows into IGBT (Insulated Gate Bipolar transistor: TR821) or the bus-bar voltage reaches 320 V or more, PAM stops and restarts. | This is not malfunction. PAM protection will be activated in the following cases: 1 Instantaneous power voltage drop. (Short time power failure) 2 When the power supply voltage is high. |
| | | 9-time flash 2.5 seconds OFF | Inverter check mode | The connector of compressor is disconnected, inverter check mode starts. | •Check if the connector of the compressor is correctly connected. Refer to 11-5.Ⓐ "How to check inverter/compressor". |

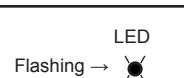
NOTE: 1. The location of LED is illustrated at the right figure. Refer to 11-6.1.

2. LED is lighted during normal operation.

The flashing frequency shows the number of times the LED blinks after every 2.5-second OFF.
(Example) When the flashing frequency is "2".

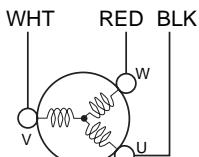
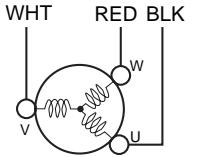
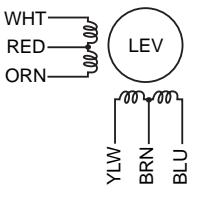


Inverter P.C. board (Parts side)



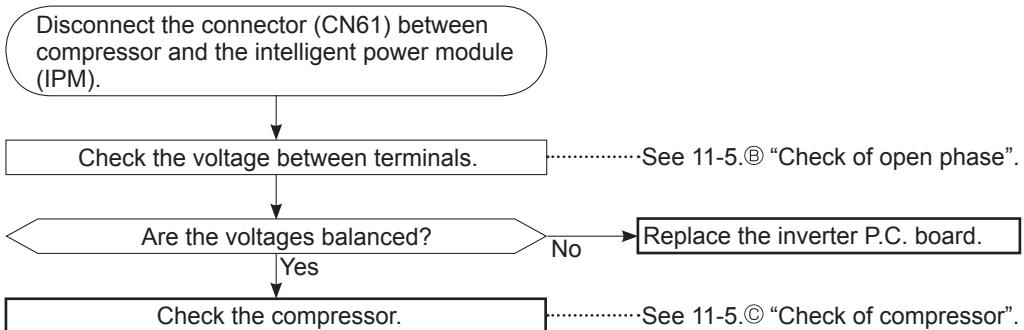
11-4. TROUBLE CRITERION OF MAIN PARTS

**MUZ-GE25VA MUZ-GE25VAH MUZ-GE35VA MUZ-GE35VAH
MUZ-GE42VA MUZ-GE42VAH MUZ-GE50VA MUZ-GE50VAH**

| Part name | Check method and criterion | Figure | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------|-------------|-----------|---------|-----------|-----------|-----------|---|-----------|-------------|-------------|-------------|-----------|--|--|--|-----------|--|--|--|---|
| Defrost thermistor (RT61) Fin temperature thermistor (RT64) Ambient temperature thermistor (RT65) Outdoor heat exchanger temperature thermistor (RT68) | Measure the resistance with a tester. Refer to 11-6. "Test point diagram and voltage", 1. "Inverter P.C. board", the chart of thermistor. | | | | | | | | | | | | | | | | | | | | | |
| Discharge temperature thermistor (RT62) | Measure the resistance with a tester. Before measurement, hold the thermistor with your hands to warm it up. Refer to 11-6. "Test point diagram and voltage", 1. "Inverter P.C. board", the chart of thermistor. | | | | | | | | | | | | | | | | | | | | | |
| Compressor | Measure the resistance between terminals using a tester. (Temperature: -10 ~ 40°C) <table border="1"> <thead> <tr> <th></th> <th colspan="3">Normal (Ω)</th> </tr> <tr> <th></th> <th>GE25</th> <th>GE35</th> <th>GE42/50</th> </tr> </thead> <tbody> <tr> <td>U-V</td> <td>1.36 ~ 1.93</td> <td>1.52 ~ 2.17</td> <td>0.78 ~ 1.11</td> </tr> <tr> <td>U-W</td> <td></td> <td></td> <td></td> </tr> <tr> <td>V-W</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | Normal (Ω) | | | | GE25 | GE35 | GE42/50 | U-V | 1.36 ~ 1.93 | 1.52 ~ 2.17 | 0.78 ~ 1.11 | U-W | | | | V-W | | | |  |
| | Normal (Ω) | | | | | | | | | | | | | | | | | | | | | |
| | GE25 | GE35 | GE42/50 | | | | | | | | | | | | | | | | | | | |
| U-V | 1.36 ~ 1.93 | 1.52 ~ 2.17 | 0.78 ~ 1.11 | | | | | | | | | | | | | | | | | | | |
| U-W | | | | | | | | | | | | | | | | | | | | | | |
| V-W | | | | | | | | | | | | | | | | | | | | | | |
| Outdoor fan motor | Measure the resistance between lead wires using a tester. (Temperature: -10 ~ 40°C) <table border="1"> <thead> <tr> <th>Color of lead wire</th> <th colspan="3">Normal (Ω)</th> </tr> <tr> <th></th> <th>GE25/35</th> <th>GE42</th> <th>GE50</th> </tr> </thead> <tbody> <tr> <td>RED – BLK</td> <td>29 ~ 42</td> <td>11 ~ 16</td> <td>12 ~ 17</td> </tr> <tr> <td>BLK – WHT</td> <td></td> <td></td> <td></td> </tr> <tr> <td>WHT – RED</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Color of lead wire | Normal (Ω) | | | | GE25/35 | GE42 | GE50 | RED – BLK | 29 ~ 42 | 11 ~ 16 | 12 ~ 17 | BLK – WHT | | | | WHT – RED | | | |  |
| Color of lead wire | Normal (Ω) | | | | | | | | | | | | | | | | | | | | | |
| | GE25/35 | GE42 | GE50 | | | | | | | | | | | | | | | | | | | |
| RED – BLK | 29 ~ 42 | 11 ~ 16 | 12 ~ 17 | | | | | | | | | | | | | | | | | | | |
| BLK – WHT | | | | | | | | | | | | | | | | | | | | | | |
| WHT – RED | | | | | | | | | | | | | | | | | | | | | | |
| R. V. coil (21S4) | Measure the resistance using a tester. (Temperature: -10 ~ 40°C) <table border="1"> <thead> <tr> <th>Normal (kΩ)</th> </tr> <tr> <td>1.19 ~ 1.78</td> </tr> </thead> </table> | Normal (kΩ) | 1.19 ~ 1.78 | | | | | | | | | | | | | | | | | | | |
| Normal (kΩ) | | | | | | | | | | | | | | | | | | | | | | |
| 1.19 ~ 1.78 | | | | | | | | | | | | | | | | | | | | | | |
| Expansion valve coil (LEV) | Measure the resistance using a tester. (Temperature: -10 ~ 40°C) <table border="1"> <thead> <tr> <th>Color of lead wire</th> <th>Normal (Ω)</th> </tr> </thead> <tbody> <tr> <td>WHT – RED</td> <td rowspan="4">37 ~ 54</td> </tr> <tr> <td>RED – ORN</td> </tr> <tr> <td>YLW – BRN</td> </tr> <tr> <td>BRN – BLU</td> </tr> </tbody> </table> | Color of lead wire | Normal (Ω) | WHT – RED | 37 ~ 54 | RED – ORN | YLW – BRN | BRN – BLU |  | | | | | | | | | | | | | |
| Color of lead wire | Normal (Ω) | | | | | | | | | | | | | | | | | | | | | |
| WHT – RED | 37 ~ 54 | | | | | | | | | | | | | | | | | | | | | |
| RED – ORN | | | | | | | | | | | | | | | | | | | | | | |
| YLW – BRN | | | | | | | | | | | | | | | | | | | | | | |
| BRN – BLU | | | | | | | | | | | | | | | | | | | | | | |
| Defrost heater MUZ-GE•VAH | Measure the resistance using a tester. (Temperature: -10 ~ 40°C) <table border="1"> <thead> <tr> <th>Normal (Ω)</th> </tr> <tr> <td>349 ~ 428</td> </tr> </thead> </table> | Normal (Ω) | 349 ~ 428 | | | | | | | | | | | | | | | | | | | |
| Normal (Ω) | | | | | | | | | | | | | | | | | | | | | | |
| 349 ~ 428 | | | | | | | | | | | | | | | | | | | | | | |

11-5. TROUBLESHOOTING FLOW

(A) How to check inverter/compressor



(B) Check of open phase

- With the connector between the compressor and the intelligent power module disconnected, activate the inverter and check if the inverter is normal by measuring the **balance of voltage** between the terminals.

Output voltage is 50 - 130 V. (The voltage may differ according to the tester.)

<< Operation method>>

Start cooling or heating operation by pressing EMERGENCY OPERATION switch on the indoor unit. (TEST RUN OPERATION: Refer to 8-3.)

<<Measurement point>>

At 3 points

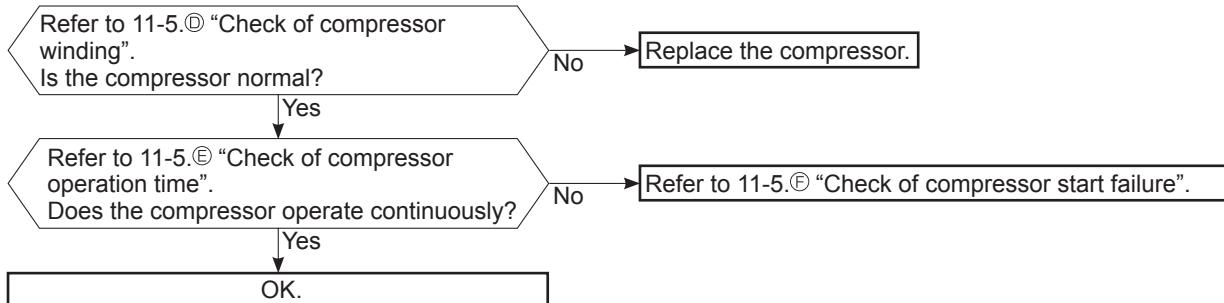
BLK (U)-WHT (V) ※ Measure AC voltage between the lead wires at 3 points.
BLK (U)-RED (W)
WHT(V)-RED (W)

NOTE: 1. Output voltage varies according to power supply voltage.

2. Measure the voltage by analog type tester.

3. During this check, LED of the inverter P.C. board flashes 9 times. (Refer to 11-6.1.)

(C) Check of compressor



D Check of compressor winding

- Disconnect the connector (CN61) between the compressor and intelligent power module, and measure the resistance between the compressor terminals.

<<Measurement point>>

at 3 points

BLK-WHT

BLK-RED

WHT-RED

※ Measure the resistance between the lead wires at 3 points.

<<Judgement>>

Refer to 11-4.

0 [Ω] Abnormal [short]

Infinite [Ω] Abnormal [open]

NOTE: Be sure to zero the ohmmeter before measurement.

E Check of compressor operation time

- Connect the compressor and activate the inverter. Then measure the time until the inverter stops due to over current.

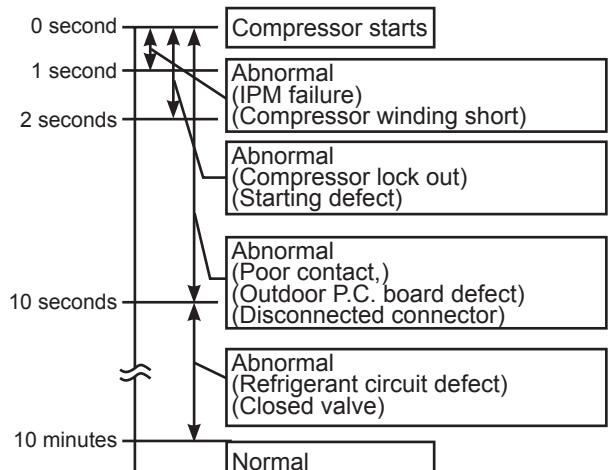
<<Operation method>>

Start heating or cooling operation by pressing EMERGENCY OPERATION switch on the indoor unit. (TEST RUN OPERATION: Refer to 8-3.)

<<Measurement>>

Measure the time from the start of compressor to the stop of compressor due to overcurrent.

<<Judgement>>



F Check of compressor start failure

Confirm that ①~④ is normal.

• Electrical circuit check

- ①. Contact of the compressor connector (Including CN61)
- ②. Output voltage of inverter P.C. board and balance of them (See 11-5.⑧)
- ③. Direct current voltage between DB61(+) and (-) on the inverter P.C. board
- ④. Voltage between outdoor terminal block S1-S2



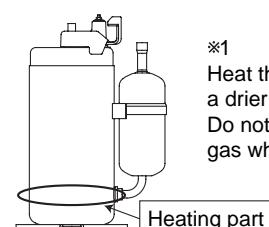
Does the compressor run for 10 seconds or more after it starts? Yes → Check the refrigerant circuit. Check the stop valve.



After the compressor is heated with a drier, does the compressor start? *1 No → Replace the compressor.



Compressor start failure. Activate pre-heat control. (Refer to 10-2. "PRE-HEAT CONTROL SETTING")

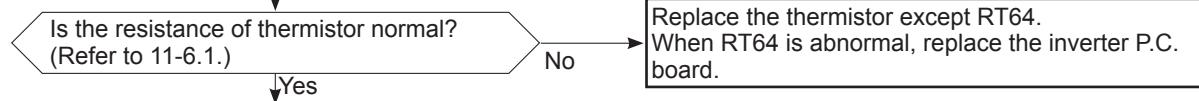


*1

Heat the compressor with a drier for about 20 minutes. Do not recover refrigerant gas while heating.

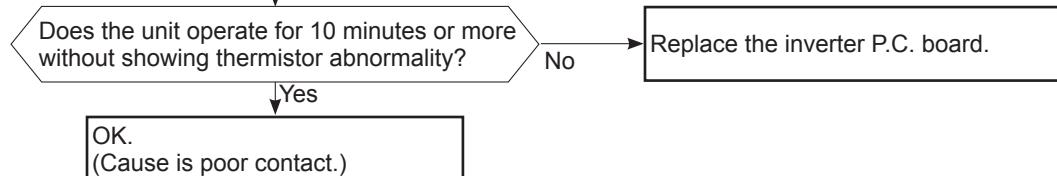
⑥ Check of outdoor thermistors

Disconnect the connector of thermistor in the outdoor P.C. board (see below table), and measure the resistance of thermistor.



Reconnect the connector of thermistor.

Turn ON the power supply and press EMERGENCY OPERATION switch.



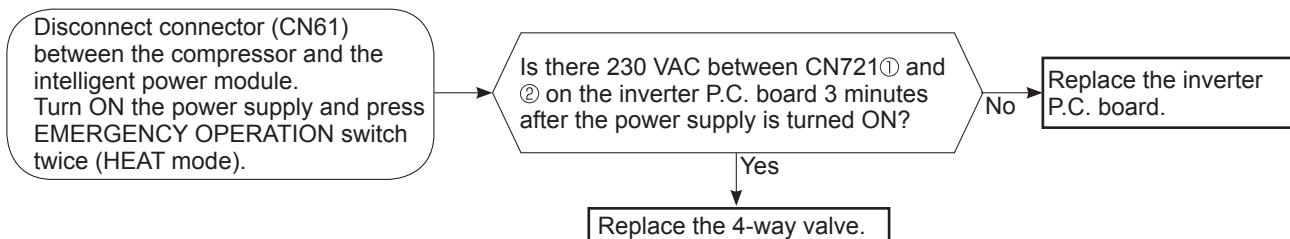
| Thermistor | Symbol | Connector, Pin No. | Board |
|------------------------------------|--------|-----------------------------|---------------------|
| Defrost | RT61 | Between CN641 pin1 and pin2 | Inverter P.C. board |
| Discharge temperature | RT62 | Between CN641 pin3 and pin4 | |
| Fin temperature | RT64 | Between CN642 pin1 and pin2 | |
| Ambient temperature | RT65 | Between CN643 pin1 and pin2 | |
| Outdoor heat exchanger temperature | RT68 | Between CN644 pin1 and pin3 | |

⑦ Check of R.V. coil

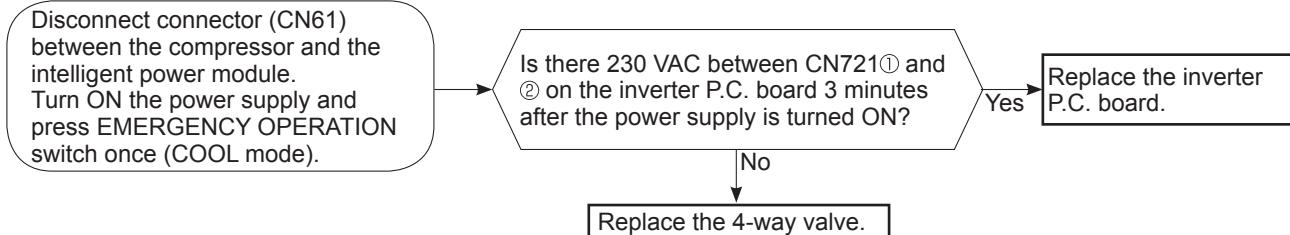
* First of all, measure the resistance of R.V. coil to check if the coil is defective. Refer to 11-4.

* In case CN721 is disconnected or R.V. coil is open, voltage is generated between the terminal pins of the connector although no signal is being transmitted to R.V. coil.
Check if CN721 is connected.

Unit operates COOL mode even if it is set to HEAT mode.



Unit operates HEAT mode even if it is set to COOL mode.



① Check of outdoor fan motor

MUZ-GE25/35/42

Disconnect CN932 from the inverter P.C. board, and measure the resistance of the outdoor fan motor.



Is the resistance of outdoor fan motor normal?
(Refer to 11-4.)

No

Replace the outdoor fan motor.



Replace the inverter P.C. board.

MUZ-GE50

Check the connection between the connector CN931 and CN932.



Is the resistance between each terminal of outdoor fan motor normal?
(Refer to 11-4.)

Yes

No

Disconnect CN932 from the inverter P.C. board, and turn on the power supply.



Rotate the outdoor fan motor manually and measure the voltage of CN931.
Between 1(+) and 5(-)
Between 2(+) and 5(-)
Between 3(+) and 5(-)

(Fixed to either 5 or 0 VDC)

No

Does the voltage between each terminal become 5 and 0 VDC repeatedly?



Yes

Does the outdoor fan motor rotate smoothly?

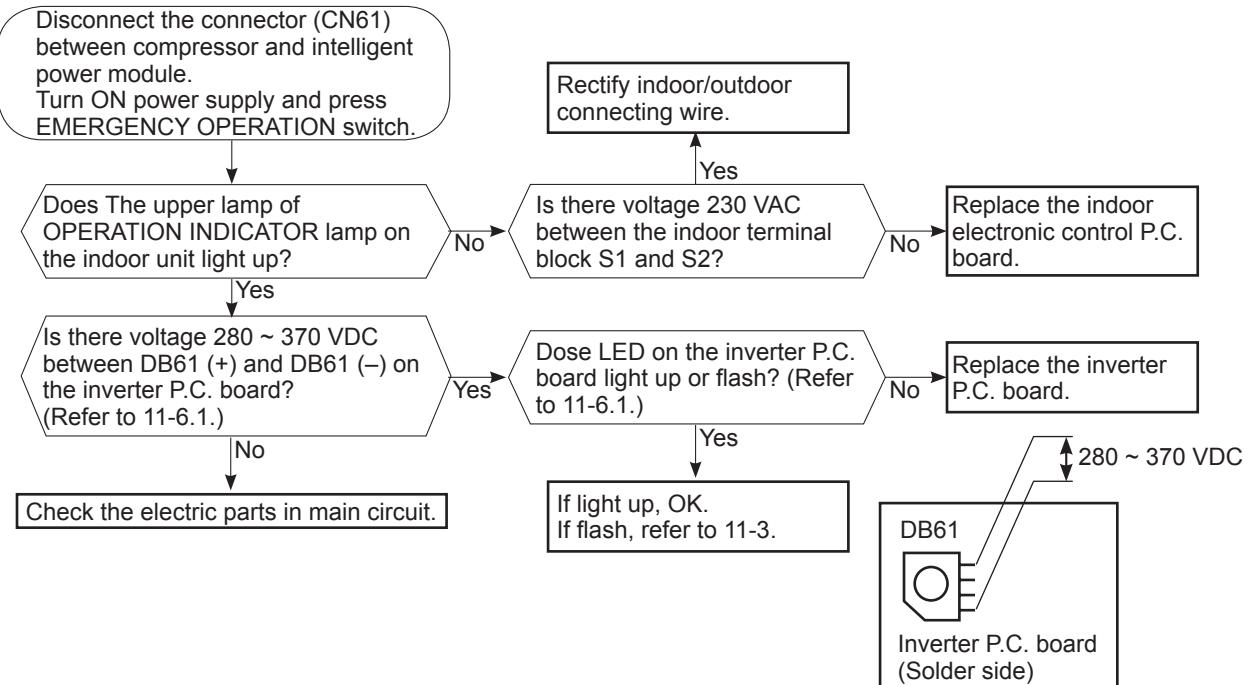


No

Replace the inverter P.C. board.

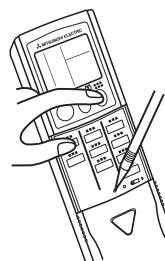
Replace the outdoor fan motor.

J Check of power supply

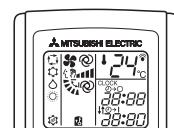


K Check of LEV (Expansion valve)

Turn ON the power supply.
 <Preparation of the remote controller>
 ① While pressing both OPERATION SELECT button and TOO COOL button on the remote controller at the same time, press RESET button.
 ② First, release RESET button.
 And release the other two buttons after all LCD except the set temperature in operation display section of the remote controller is displayed after 3 seconds.



Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit. ≈1



Expansion valve operates in full-opening direction.

Do you hear the expansion valve "click, click....."?
 Do you feel the expansion valve vibrate on touching it ?

≈1. Regardless of normal or abnormal condition, a short beep is emitted once the signal is received.

OK

Is LEV coil properly fixed to the expansion valve?

No → Properly fix the LEV coil to the expansion valve.

Yes

Does the resistance of LEV coil have the characteristics? (Refer to 11-4.)

Yes → Measure each voltage between connector pins of CN724 on the inverter P.C. board.
 1. Pin③(-) — Pin①(+)
 2. Pin④(-) — Pin①(+)
 3. Pin⑤(-) — Pin①(+)
 4. Pin⑥(-) — Pin①(+)

No → Replace the inverter P.C. board.

Is there about 3 ~ 5 VAC between each?
 NOTE: Measure the voltage by an analog tester.

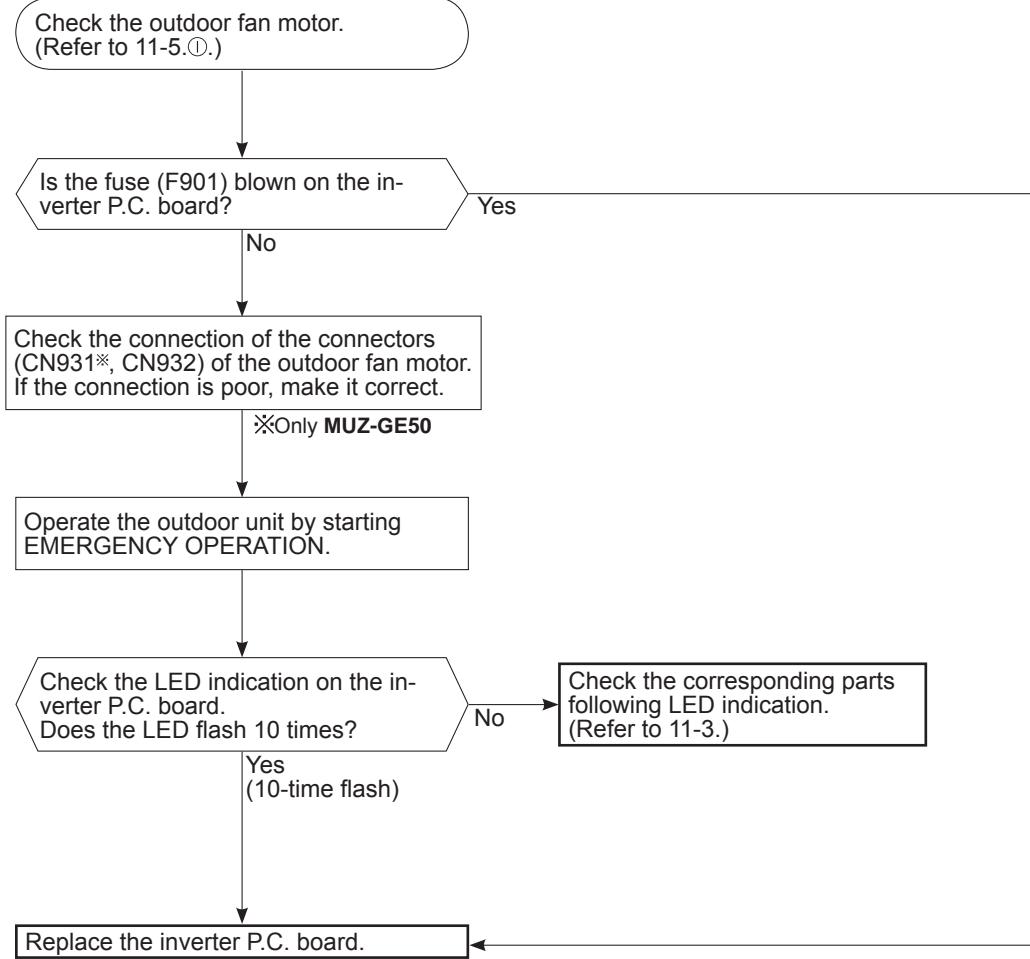
Yes

Replace the expansion valve.

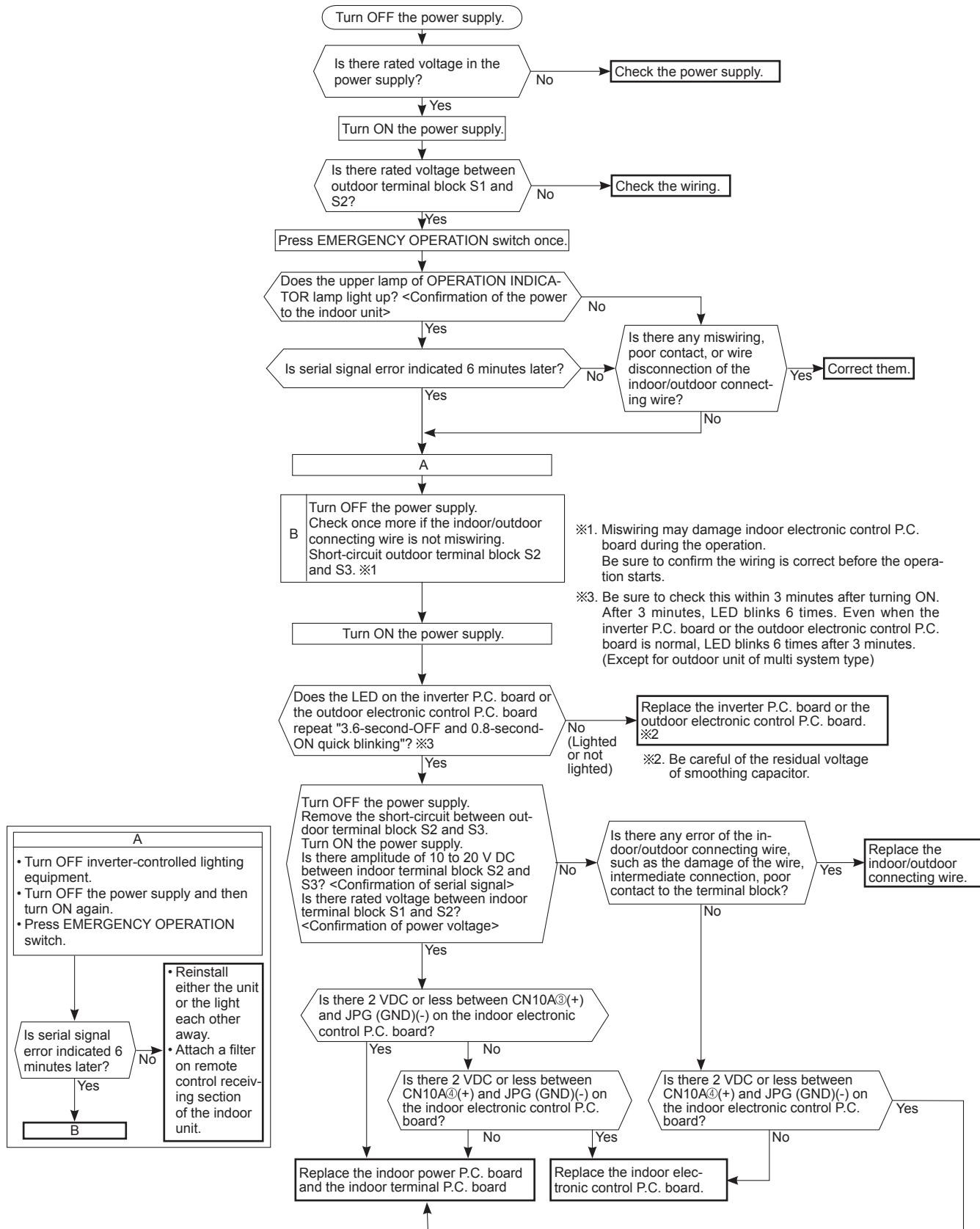
NOTE: After check of LEV, do the undermentioned operations.

1. Turn OFF the power supply and turn it ON again.
2. Press RESET button on the remote controller.

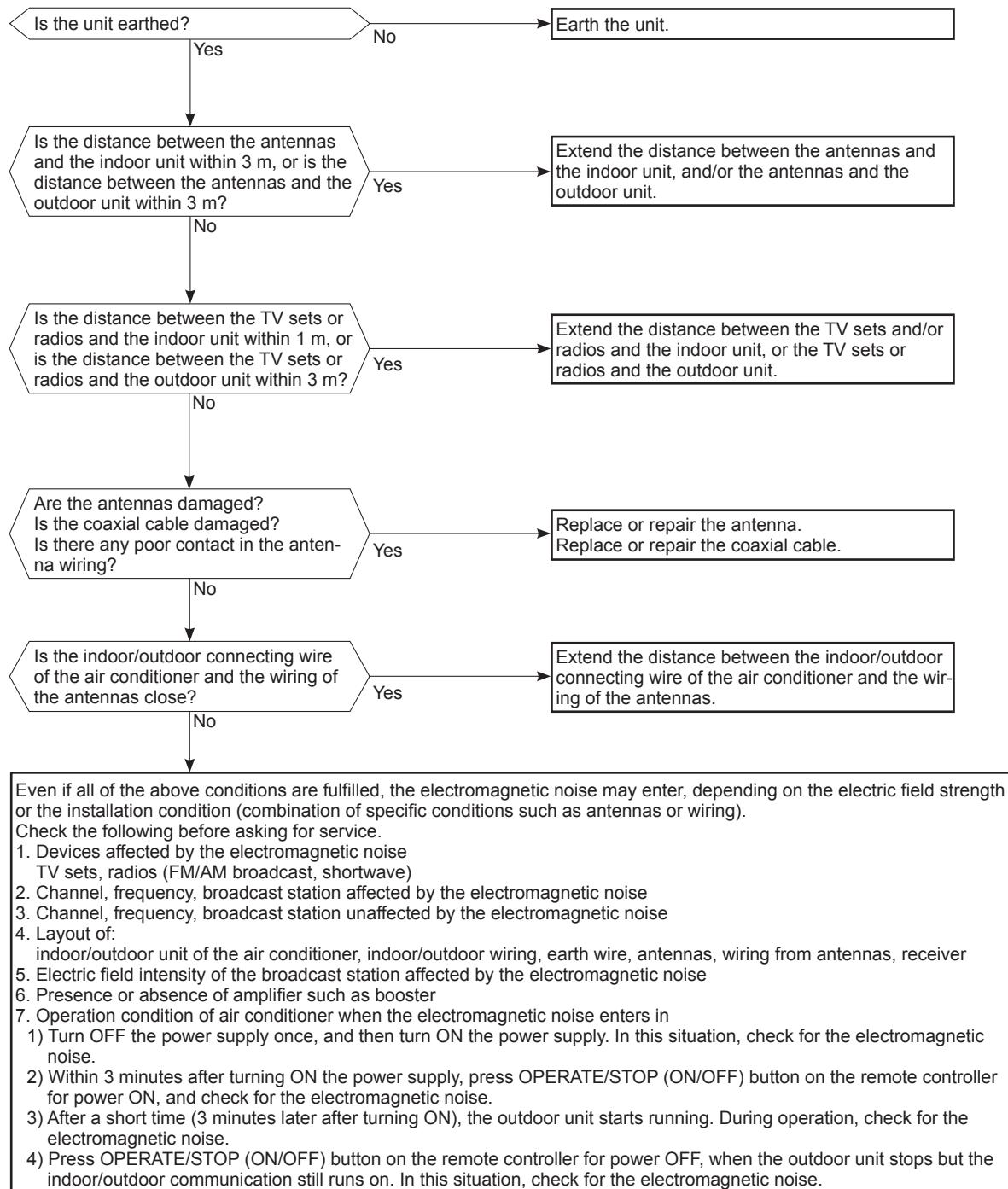
① Check of inverter P.C. board



Ⓜ How to check miswiring and serial signal error



⑩ Electromagnetic noise enters into TV sets or radios



① Check of defrost heater

MUZ-GE•VAH

Check the following points before checking electric continuity.

1. Does the resistance of ambient temperature thermistor have the characteristics? Refer to 11-6.1.
2. Is the resistance of defrost heater normal? Refer to 11-4.
3. Does the heater protector remain conducted (not open)?
4. Are both ambient temperature thermistor and circuit of defrost heater securely connected to connectors?

In HEAT mode, for more than 5 minutes, let the ambient temperature thermistor continue to read 5°C or below, and let the defrost thermistor continue to read -1°C or below.

NOTE: In case both thermistors are more than the above temperature, cool them with cold water etc...

Is there 230 VAC between CN722 ① and ③ on the inverter P.C. board? Refer to 11-6.1.

Yes

Not the problem of the inverter P.C. board.

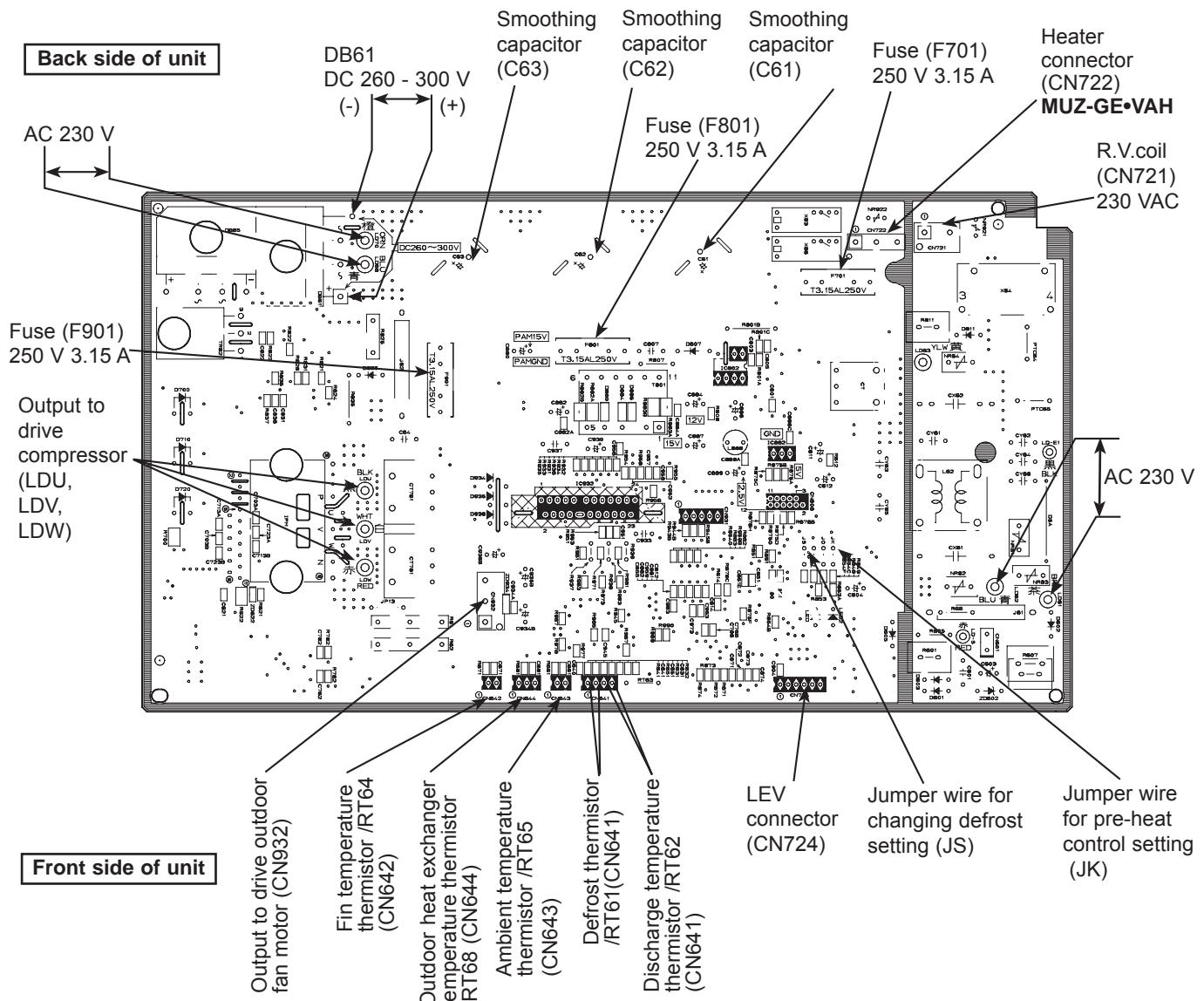
No

Replace the inverter P.C. board.

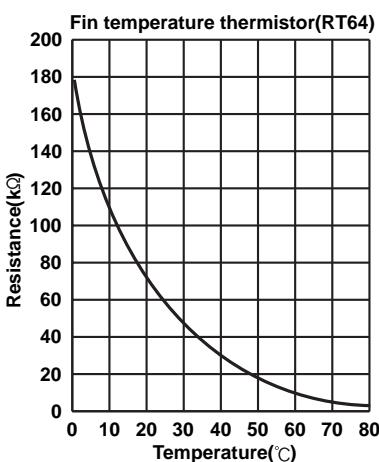
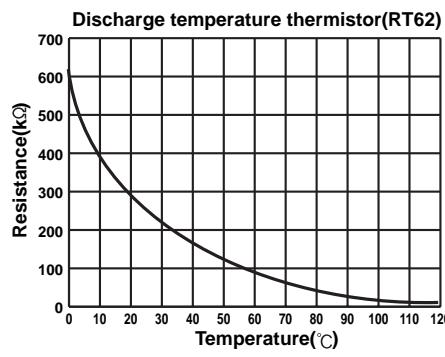
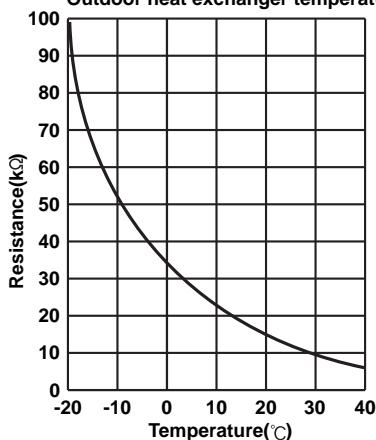
11-6. TEST POINT DIAGRAM AND VOLTAGE

1. Inverter P.C. board

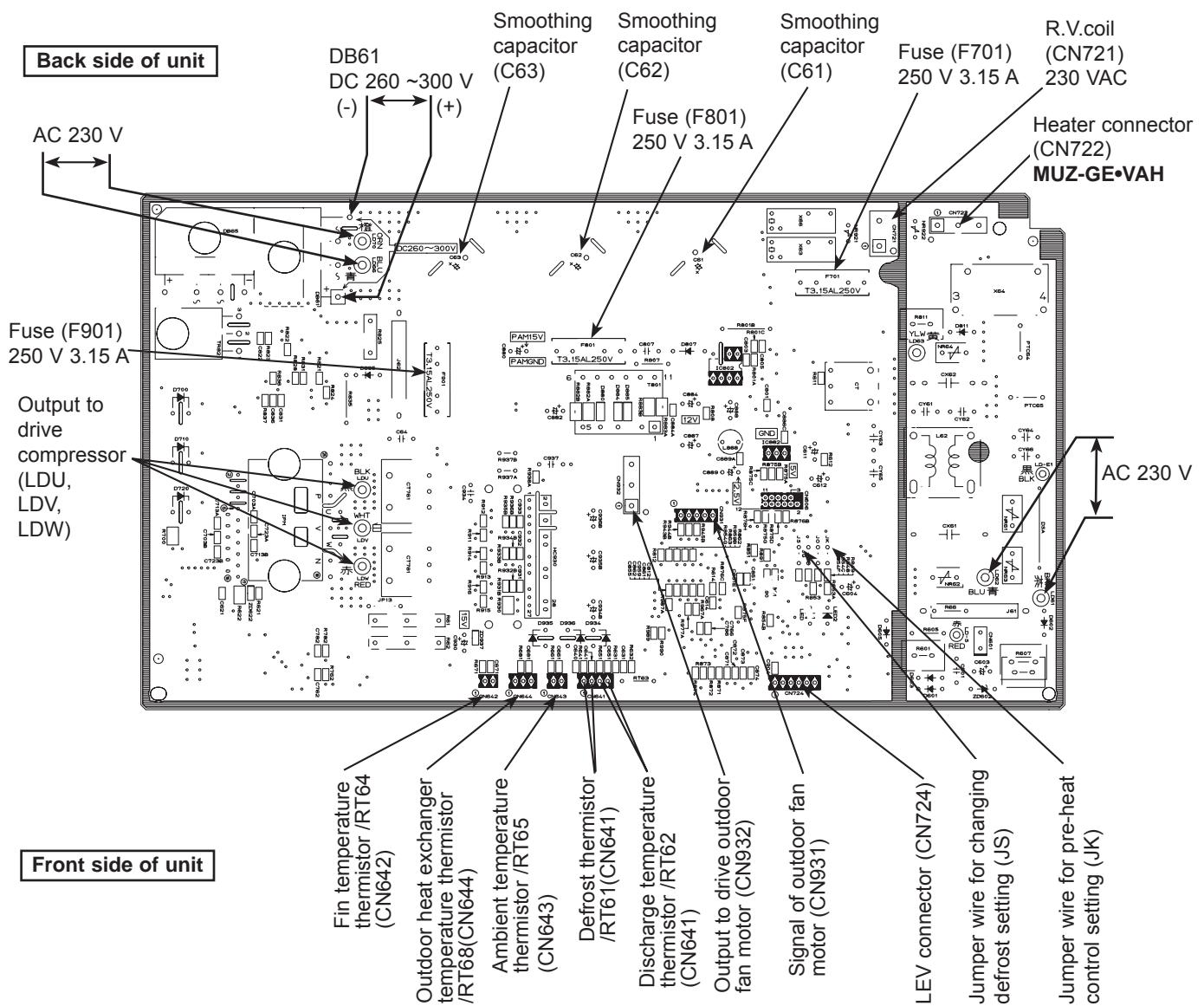
**MUZ-GE25VA MUZ-GE25VAH MUZ-GE35VA MUZ-GE35VAH
MUZ-GE42VA MUZ-GE42VAH**



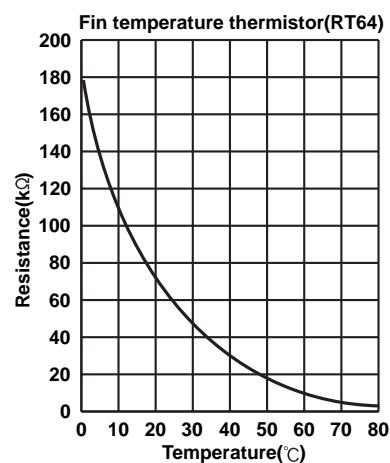
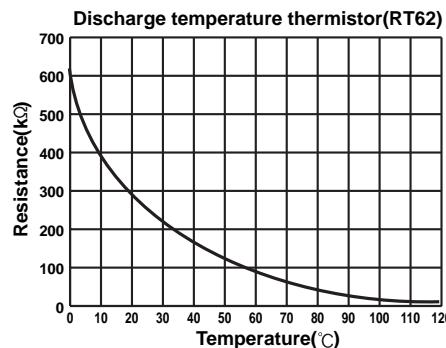
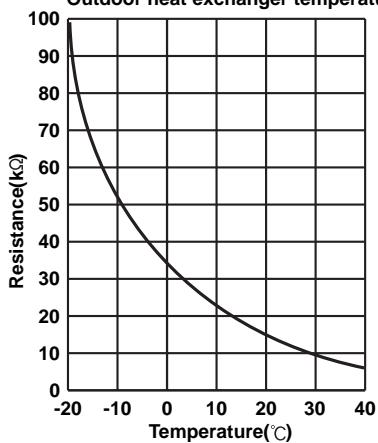
Defrost thermistor(RT61)
Ambient temperature thermistor(RT65)
Outdoor heat exchanger temperature thermistor(RT68)



MUZ-GE50VA MUZ-GE50VAH



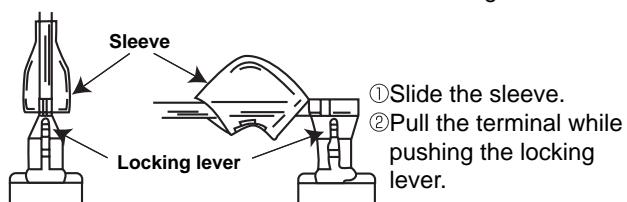
Defrost thermistor(RT61)
Ambient temperature thermistor(RT65)
Outdoor heat exchanger temperature thermistor(RT68)



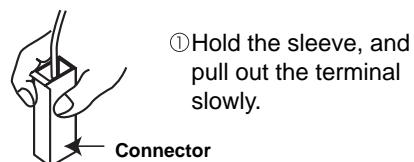
<"Terminal with locking mechanism" Detaching points>

The terminal which has the locking mechanism can be detached as shown below. There are two types (refer to (1) and (2)) of the terminal with locking mechanism. The terminal without locking mechanism can be detached by pulling it out. Check the shape of the terminal before detaching.

(1) Slide the sleeve and check if there is a locking lever or not.



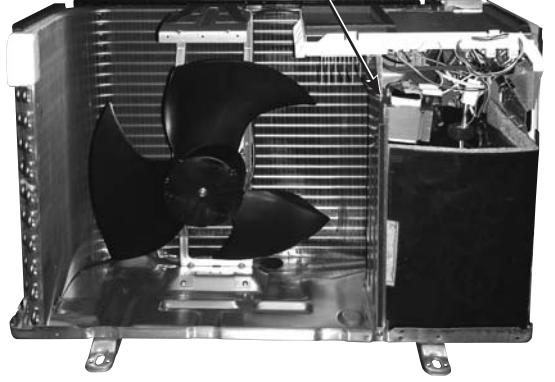
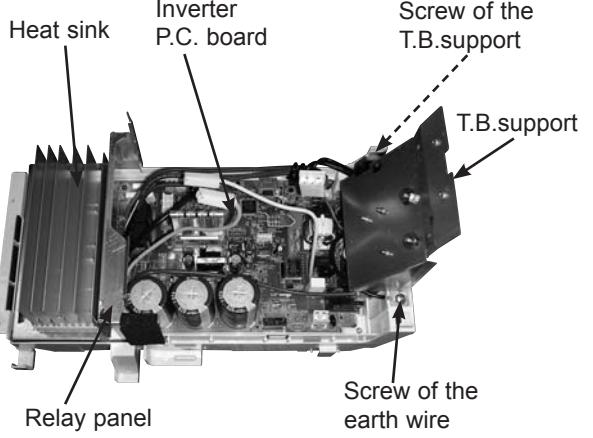
(2) The terminal with this connector has the locking mechanism.

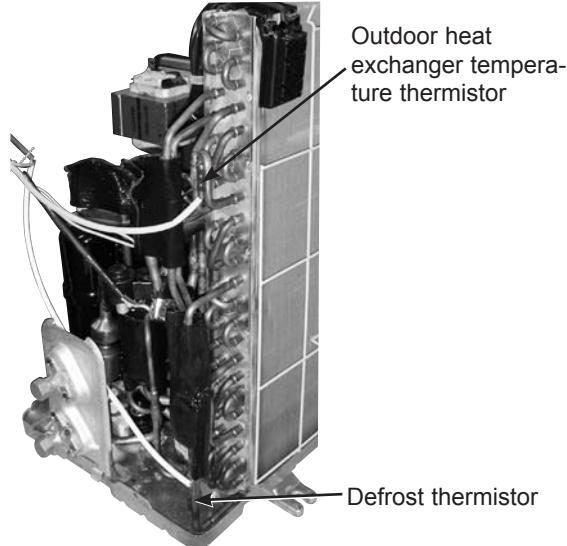
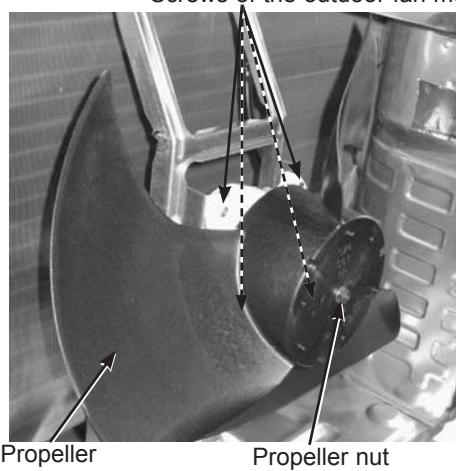


12-1. MUZ-GE25VA MUZ-GE25VAH MUZ-GE35VA MUZ-GE35VAH MUZ-GE42VA MUZ-GE42VAH

NOTE: Turn OFF power supply before disassembling.

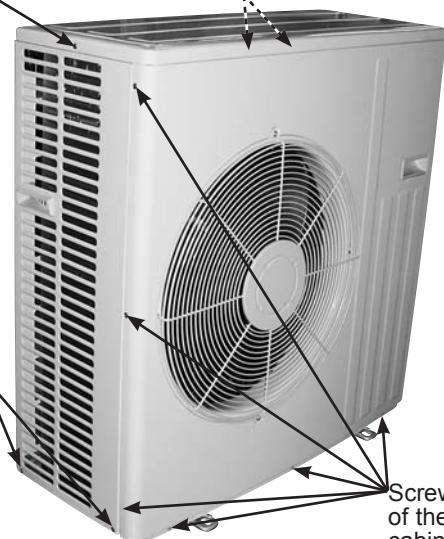
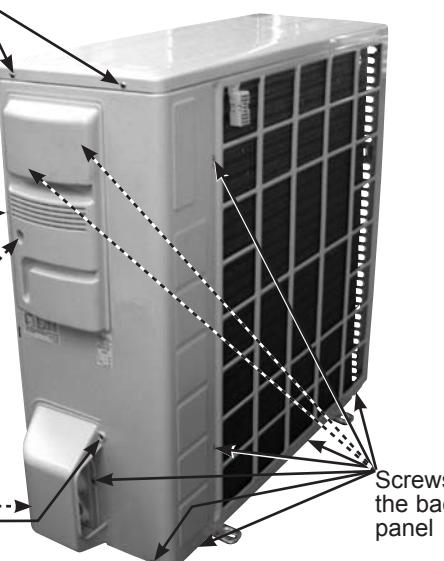
| OPERATING PROCEDURE | PHOTOS |
|--|---|
| <p>1. Removing the cabinet</p> <p>(1) Remove the screw fixing the service panel. (2) Pull down the service panel and remove it. (3) Disconnect the power supply and indoor/outdoor connecting wire. (4) Remove the screws fixing the top panel. (5) Remove the top panel. (6) Remove the screws fixing the cabinet. (7) Remove the cabinet. (8) Remove the screws fixing the back panel. (9) Remove the back panel.</p> | <p>Photo 1</p> <p>Photo 2</p> |

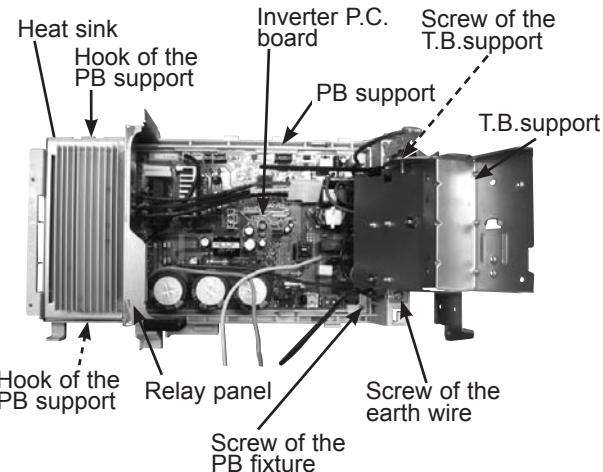
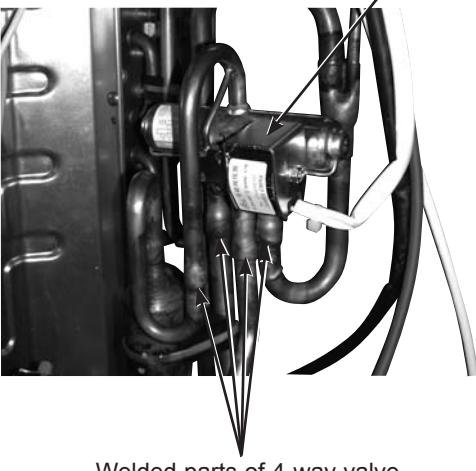
| OPERATING PROCEDURE | PHOTOS |
|--|---|
| <p>2. Removing the inverter assembly, inverter P.C. board</p> <p>(1) Remove the cabinet and panels. (Refer to 1.)</p> <p>(2) Disconnect the lead wire to the reactor and the following connectors:</p> <p><Inverter P.C. board></p> <p>CN721 (R.V. coil) CN722 (Defrost heater) CN932 (Fan motor) CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) CN724 (LEV)</p> <p>(3) Remove the compressor connector (CN61).</p> <p>(4) Remove the screws fixing the relay panel. (Photo 3)</p> <p>(5) Remove the inverter assembly. (Photo 4)</p> <p>(6) Remove the screw of the earth wire and screw of the T.B.support. (Photo 4)</p> <p>(7) Remove the relay panel from the inverter assembly.</p> <p>(8) Remove the inverter P.C. board from the relay panel.</p> | <p>Photo 3</p>  |
| <p>3. Removing R.V. coil</p> <p>(1) Remove the cabinet and panels. (Refer to 1.)</p> <p>(2) Disconnect the following connectors:</p> <p><Inverter P.C. board></p> <p>CN721 (R.V. coil)</p> <p>(3) Remove the R.V. coil. (Photo 5)</p> | <p>Photo 4 (Inverter assembly)</p>  |
| <p>4. Removing the discharge temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor</p> <p>(1) Remove the cabinet and panels. (Refer to 1.)</p> <p>(2) Disconnect the lead wire to the reactor and the following connectors:</p> <p><Inverter P.C. board></p> <p>CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor)</p> <p>(3) Pull out the discharge temperature thermistor from its holder. (Photo 5)</p> <p>(4) Pull out the defrost thermistor from its holder. (Photo 6)</p> <p>(5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (Photo 6)</p> <p>(6) Pull out the ambient temperature thermistor from its holder.</p> | <p>Photo 5</p>  |

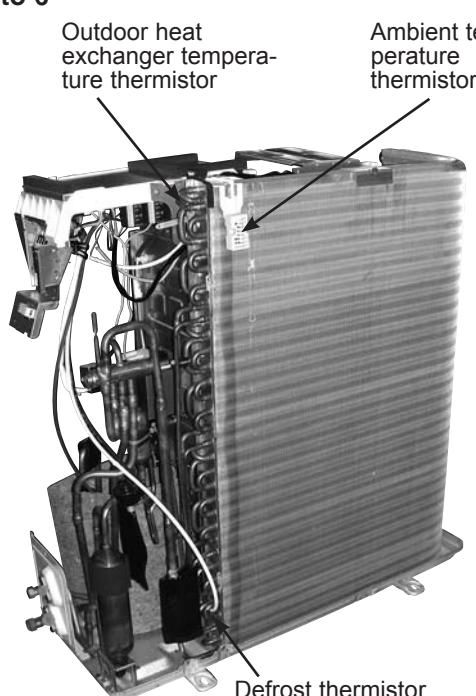
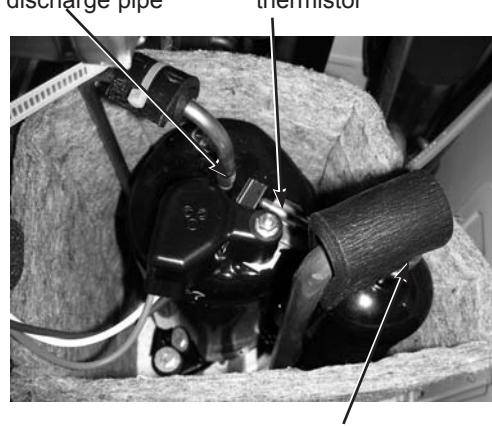
| OPERATING PROCEDURE | PHOTOS |
|--|--|
| <p>5. Removing outdoor fan motor</p> <p>(1) Remove the cabinet and panels. (Refer to 1.) (2) Disconnect the following connectors: <Inverter P.C. board> CN932 (Fan motor) (3) Remove the propeller nut. (Photo 7) (4) Remove the propeller. (Photo 7) (5) Remove the screws fixing the fan motor. (Photo 7) (6) Remove the fan motor.</p> | <p>Photo 6</p>  |
| <p>6. Removing the compressor and 4-way valve</p> <p>(1) Remove the cabinet and panels. (Refer to 1.) (2) Remove the inverter assembly. (Refer to 2.) (3) Recover gas from the refrigerant circuit.</p> <p>NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa).</p> <p>(4) Detach the welded part of the suction and the discharge pipe connected with compressor. (5) Remove the nuts of compressor legs. (6) Remove the compressor. (7) Detach the welded part of pipes connected with 4-way valve. (Photo 8)</p> | <p>Photo 7</p>  <p>Photo 8</p>  |

12-2. MUZ-GE50VA MUZ-GE50VAH

NOTE: Turn OFF power supply before disassembling.

| OPERATING PROCEDURE | PHOTOS |
|---|---|
| <p>1. Removing the cabinet</p> <p>(1) Remove the screws of the service panel. (2) Remove the screws of the top panel. (3) Remove the screw of the valve cover. (4) Remove the service panel. (5) Remove the top panel. (6) Remove the valve cover. (7) Disconnect the power supply and indoor/outdoor connecting wire. (8) Remove the screws of the cabinet. (9) Remove the cabinet. (10) Remove the screws of the back panel. (11) Remove the back panel.</p> | <p>Photo 1</p>  <p>Photo 2</p>  |

| OPERATING PROCEDURE | PHOTOS |
|--|---|
| <p>2. Removing the inverter assembly, inverter P.C. board</p> <p>(1) Remove the cabinet and panels. (Refer to 1.)</p> <p>(2) Disconnect the lead wire to the reactor and the following connectors:</p> <p><Inverter P.C. board></p> <p>CN721 (R.V.coil) CN932 (Fan motor) CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) CN724 (LEV)</p> <p>(3) Remove the compressor connector (CN61).</p> <p>(4) Remove the screws fixing the relay panel. (Photo 3)</p> <p>(5) Remove the inverter assembly. (Photo 4)</p> <p>(6) Remove the screw of the earth wire and screw of the T.B.support. (Photo 4)</p> <p>(7) Remove the screw of the PB fixture.</p> <p>(8) Remove the relay panel from the PB support.</p> <p>(9) Remove the inverter P.C. board from the inverter assembly.</p> | <p>Photo 3</p>  |
| <p>3. Removing R.V. coil</p> <p>(1) Remove the cabinet and panels. (Refer to 1.)</p> <p>(2) Disconnect the following connectors:</p> <p><Inverter P.C. board></p> <p>CN721 (R.V. coil)</p> <p>(3) Remove the R.V. coil. (Photo 5)</p> | <p>Photo 4 (Inverter assembly)</p>  <p>Photo5</p>  |

| OPERATING PROCEDURE | PHOTOS |
|---|---|
| <p>4. Removing the discharge temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor</p> <p>(1) Remove the cabinet and panels. (Refer to 1.)</p> <p>(2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor)</p> <p>(3) Pull out the discharge temperature thermistor from its holder. (Photo 8)</p> <p>(4) Pull out the defrost thermistor from its holder. (Photo 6)</p> <p>(5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (Photo 6)</p> <p>(6) Pull out the ambient temperature thermistor from its holder. (Photo 6)</p> | <p>Photo 6</p>  |
| <p>5. Removing outdoor fan motor</p> <p>(1) Remove the top panel, cabinet and service panel. (Refer to 1.)</p> <p>(2) Disconnect the following connectors: <Inverter P.C. board> CN931 and CN932 (Fan motor)</p> <p>(3) Remove the propeller.</p> <p>(4) Remove the screws fixing the fan motor.</p> <p>(5) Remove the fan motor.</p> | <p>Photo 7</p>  |
| <p>6. Removing the compressor and 4-way valve</p> <p>(1) Remove the top panel, cabinet and service panel. (Refer to 1.)</p> <p>(2) Remove the back panel. (Refer to 1.)</p> <p>(3) Remove the inverter assembly. (Refer to 2.)</p> <p>(4) Recover gas from the refrigerant circuit.</p> <p>NOTE: Recover gas from the pipes until the pressure gauge shows 0 MPa.</p> <p>(5) Detach the welded part of the suction and the discharge pipe connected with compressor.</p> <p>(6) Remove the compressor nuts.</p> <p>(7) Remove the compressor.</p> <p>(8) Detach the welded part of 4-way valve and pipe. (Photo 5.)</p> | <p>Photo 8</p>  |



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